

The Buyer's Guide

Suppliers Specializing in Service to the Refrigeration and Air Conditioning Industries

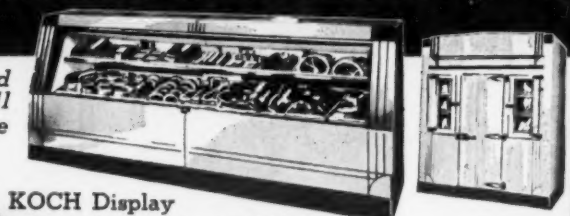
DISTRIBUTORS and
SALES AGENTS

WANTED

for **KOCH COMMERCIAL REFRIGERATOR CABINETS**

Some very good territories still available

Complete Market Equipment by **KOCH**



KOCH Display Cases Have 4-in. Corkboard Insulation, Triple Plate Glass, and Are Porcelain Clad

Write for full information, stating qualifications

KOCH REFRIGERATORS

North Kansas City, Mo.

TYLER'S NEW WELDED STEEL REFRIGERATOR CASES



At last a general purpose case at a sensible price. Offers every advantage of the most costly cases at tremendous savings. Modern in every detail. Comes equipped with coils. Single and double duty models.

AN AMAZING VALUE

Hundreds in use. Perfect refrigeration for meat, dairy and delicatessen products and all perishables sold in food stores. Write or wire for all the facts.

TYLER Sales-Fixture CO. Dept. E, Niles, Mich.

3 INCH INSULATION-TRIPLE GLASS

MODEL No. 350—THE 30 CU. FT.

REFRIGERATOR FOR SMALL RESTAURANTS, LUNCH ROOMS, BARBECUE STANDS, AND WHEREVER LIGHT REFRESHMENTS ARE SOLD

A practical all metal Cabinet, white DuLux or Porcelain finish; 3" approved insulation, perfectly designed coil and bunker; retinned steel shelves; and bright chromium hardware with locking attachments.

Available with solid or display type doors, or a combination of both. Lower compartment holds 14 cases of 12-ounce beverage bottles; upper compartment has 7½ square feet of shelf area. Overall size 48"x38"x68" high.

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GLOEKLER MANUFACTURING COMPANY
429 FOURTH AVENUE
PITTSBURGH PENNSYLVANIA



PURO ELECTRIC WATER COOLERS

Thoroughly reinforced all steel attractively finished cabinets.
Complete line of different Models and Capacities.

Write for details and sales prices.

Puro Filter Corporation of America

440 Lafayette Street, New York City Spring 7-1800



Perfect Beer

"The Leitner System" gives Cold Control—Firm Control in any Beer Cooler. Sensitive to 1° temperature change in beer coils. Can be installed and operated by anyone. For either single or multiple installations. "The Leitner System" is supplied ready to install and prices.

Write Today

M. LEITNER & CO.
Leading Manufacturers and Distributors Since 1906
2322 OGDEN AVENUE
CHICAGO, ILL.

CASH IN ON FILTERPURE



- ✓ Installed in a minute's time in counter cases and reach-in boxes.
- ✓ Lowers temperature 8 to 12 degrees.
- ✓ No taste transfer. You can place fish next to meat in absolute safety.
- ✓ Maintains color and firmness of meat.
- ✓ Uniform temperature and humidity.
- ✓ Retail for \$29.50.

Filterpure is the fastest selling article ever introduced in the refrigeration field. It is the "missing link" to 100% refrigeration. Write today.

BETZ CORPORATION BETZ BUILDING Hammond, Ind.

Patents

Issued July 21, 1936

2,047,937. REFRIGERATOR DISPLAY CASE. Samuel Bohn, Passiac, N. J., and Harold D. King, Cuyahoga Falls, Ohio, assignors to American Hard Rubber Company, New York, N. Y. Application July 2, 1935, Serial No. 29,454. 8 Claims. (Cl. 312-138)

2,047,996. REFRIGERATOR CONSTRUCTION. Powel Croasley, Jr., and Roland H. Money, Cincinnati, Ohio, assignors to The Crosley Radio Corporation, Cincinnati, Ohio. Application January 19, 1934, Serial No. 707,370. 7 Claims. (Cl. 312-173)

2,048,017. HUMIDIFIER. Charles A. McElvain, Butler, Pa. Application March 9, 1935, Serial No. 10,289. 3 Claims. (Cl. 261-90)

2,048,025. REFRIGERATING APPARATUS. Lawrence A. Philipp, Detroit, Mich., assignor to Kelvinator Corporation, Detroit, Mich. Application May 9, 1932, Serial No. 601,021. 8 Claims. (Cl. 62-115)

2,048,026. REFRIGERATING APPARATUS. Lawrence A. Philipp, Detroit, Mich., assignor to Kelvinator Corporation, Detroit, Mich. Application November 1, 1932, Serial No. 47,748. 6 Claims. (Cl. 62-115)

2,048,137. REFRIGERATION METHOD AND APPARATUS FOR THE CONDITIONING OF AIR. Robert T. Palmer, Sharon, Mass., assignor to B. F. Sturtevant Company, Inc., Hyde Park, Boston, Mass. Application July 16, 1935, Serial No. 31,597. 9 Claims. (Cl. 62-176)

2,048,160. ICE CUBE TRAY. Guy L. Keeseecker, Washington, D. C. Application April 4, 1935, Serial No. 14,682. 2 Claims. (Cl. 62-108.5)

2,048,212. REFRIGERATING APPARATUS. Martin J. Gouloze, Grand Rapids, Mich., assignor to Kelvinator Corporation, Detroit, Mich. Application March 19, 1934, Serial No. 716,304. 13 Claims. (Cl. 211-153)

2,048,218. REFRIGERATING APPARATUS. Lawrence A. Philipp, Detroit, Mich., assignor to Kelvinator Corporation, Detroit, Mich. Original application May 10, 1932, Serial No. 610,472. Divided and this application January 29, 1934, Serial No. 708,840. 1 Claim. (Cl. 230-47)

2,048,233. TOOL FOR REFRIGERATOR TRAYS. Charles C. Thomas, Detroit, Mich., assignor to Kelvinator Corporation, Detroit, Mich. Application February 21, 1934, Serial No. 712,359. 3 Claims. (Cl. 254-131)

2,048,246. AIR CONDITIONING DEVICE. Don E. Dasher, Harrison Township, Montgomery County, Ohio, assignor to Trupar Manufacturing Company, Dayton, Ohio. Application March 27, 1933, Serial No. 662,937. 17 Claims. (Cl. 62-134)

2,048,266. BEER COOLING AND DISPENSING SYSTEM. Thomas Alfred Jenkins, Roselle, N. J. Application May 11, 1935, Serial No. 20,934. 4 Claims. (Cl. 62-141)

2,048,282. CONDENSATE CONTROL MEANS FOR AIR CONDITIONING APPARATUS. Charles R. Neeson, New Rochelle, N. Y., assignor to Arthur S. Locke, Philadelphia, Pa., assignor to Baldwin-Southwark Corporation. Application March 28, 1933, Serial No. 663,198. 13 Claims. (Cl. 62-103)

2,048,291. REFRIGERATING APPARATUS. Clara E. Quinn, Mount Vernon, Ill. Application November 14, 1934, Serial No. 752,905. 12 Claims. (Cl. 62-101)

2,048,412. TRAY FOR REFRIGERATORS. Jesse Sissman, Chicago, Ill., assignor to Copeman Laboratories Company, Flint, Mich. Application March 21, 1930, Serial No. 437,701. 10 Claims. (Cl. 62-108.5)

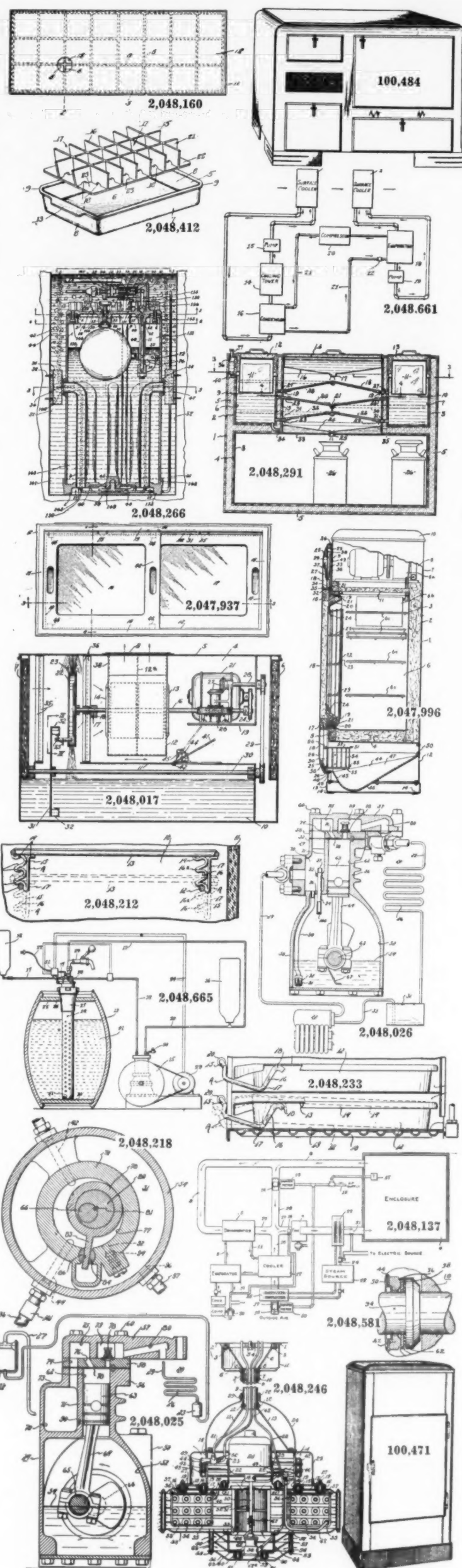
2,048,581. SEAL FOR REFRIGERATING APPARATUS. George F. Weiher, Dayton, Ohio, assignor to General Motors Corporation, Dayton, Ohio. Application June 30, 1934, Serial No. 733,289. 2 Claims. (Cl. 286-11)

2,048,661. COOLING OF AIR BY REFRIGERATION. Matthew M. Lawler, Chicago, Ill., assignor to The Cooling and Air Conditioning Corporation, Hyde Park, Boston, Mass. Original application March 6, 1934, Serial No. 714,219. Divided and this application July 26, 1935, Serial No. 33,224. 3 Claims. (Cl. 62-129)

2,048,665. BEVERAGE COOLING AND DISPENSING SYSTEM. John Dolan, Fords, and Anthony J. Granata, Trenton, N. J., assignors of thirty per cent to said Dolan, forty-seven and one-half per cent to said Granata, ten per cent to Alfred D. Antonio, Perth Amboy, three per cent to Joseph Henry Volkman, Union City, N. J., five per cent to Leo Savoleo, New York, N. Y., one and one-half per cent to Maggie E. Dilts, Whitehouse, and one and one-half per cent to Lucia Avidano and one and one-half per cent to Victor Bassi, both of Bridgewater, N. J. Application December 5, 1935, Serial No. 53,070. 10 Claims. (Cl. 225-1)

DESIGNS

100,471. DESIGN FOR A REFRIGERATOR. William C. Grunow, River Forest, E. Donald Coots, Oak Park, and Mahlon W. Kenney, Chicago, Ill., assignors to General Household Utilities Company, Chicago, Ill. Application March 18, 1935,



Serial No. 55,929. Term of patent 14 years.

100,484. DESIGN FOR A REFRIGERATOR CABINET OR SIMILAR ARTICLE. John Milton Van Patter, Aylmer, Ontario, Canada. Application May 16, 1936, Serial No. 62,685. Term of patent 3½ years.

PATENTS

HAVE YOUR patent work done by a specialist. I have had more than 25 years' experience in refrigeration engineering. Prompt searches and reports. Reasonable fees. H. R. VAN DEVENTER (ASRE), Patent Attorney, 342 Madison Avenue, New York City.

Back-Seating Valve Included In Perfection Line

HARVEY, Ill.—New compressor replacement part introduced by the Perfection Refrigeration Parts Co. is a back-seating compressor valve, seal cap type 49.

This new valve has bolt holes drilled 11/32 of an inch on 1½ inch centers; gauge plug ¼ inch I.P.T.; tube size ½ inch.

CLEVELAND, Ohio, August 12.—The Cleveland Association of Distributors is holding a convention here today. The association is composed of distributors of refrigeration and air conditioning equipment. The convention is being held at the Hotel Cleveland. The association is holding a convention here today. The association is composed of distributors of refrigeration and air conditioning equipment. The convention is being held at the Hotel Cleveland. The association is holding a convention here today. The association is composed of distributors of refrigeration and air conditioning equipment. The convention is being held at the Hotel Cleveland.

After the convention, the association will hold a dinner at the Hotel Cleveland. The association is holding a convention here today. The association is composed of distributors of refrigeration and air conditioning equipment. The convention is being held at the Hotel Cleveland. The association is holding a convention here today. The association is composed of distributors of refrigeration and air conditioning equipment. The convention is being held at the Hotel Cleveland.

Members of the association are being entertained at the Hotel Cleveland. The association is holding a convention here today. The association is composed of distributors of refrigeration and air conditioning equipment. The convention is being held at the Hotel Cleveland. The association is holding a convention here today. The association is composed of distributors of refrigeration and air conditioning equipment. The convention is being held at the Hotel Cleveland.

Milwaukee, Wis., August 12.—The Milwaukee Association of Distributors is holding a convention here today. The association is composed of distributors of refrigeration and air conditioning equipment. The convention is being held at the Hotel Milwaukee. The association is holding a convention here today. The association is composed of distributors of refrigeration and air conditioning equipment. The convention is being held at the Hotel Milwaukee.

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Salesmen of the association are being entertained at the Hotel Milwaukee. The association is holding a convention here today. The association is composed of distributors of refrigeration and air conditioning equipment. The convention is being held at the Hotel Milwaukee. The association is holding a convention here today. The association is composed of distributors of refrigeration and air conditioning equipment. The convention is being held at the Hotel Milwaukee.

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Sole

ELKHART, Ind., August 12.—The Elkhart Association of Distributors is holding a convention here today. The association is composed of distributors of refrigeration and air conditioning equipment. The convention is being held at the Hotel Elkhart. The association is holding a convention here today. The association is composed of distributors of refrigeration and air conditioning equipment. The convention is being held at the Hotel Elkhart.

REFRIGERATION NEWS

Registered U. S. Patent Office

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DETROIT, MICHIGAN, AUGUST 19, 1936

Copyright, 1936, by
Business News Pub. Co.THREE DOLLARS PER YEAR
TEN CENTS PER COPY**Dealers Issue Ultimatum on Ohio Price Law****Distributors Given Until Aug. 25 to Establish Resale Contracts**

CLEVELAND—In a letter to local distributors last week, members of Cleveland Retail Appliance Dealers Association gave them until Aug. 25 to decide whether or not they will cooperate in stamping out price cutting by taking advantage of Ohio's new price maintenance law.

The letter, sent to about 30 distributors over the signature of George W. Walker, secretary of the association, follows:

"The members of this association are concerned about the attitude of the distributors and manufacturers relative to the new Ohio Fair Trade Act. Will you kindly advise whether it is your intention to furnish contracts as mentioned in this law, and, if so, when?"

"A reply before Aug. 25 will permit a report to be made to our executive committee, who are meeting on that date."

After distributors' attitudes have been ascertained, it is understood, association members plan to discontinue to purchase appliances from any one unwilling to draft resale contracts which would protect prices under the new law. (ELECTRIC REFRIGERATION NEWS, July 29.)

Dealers plan to pool their purchases on the brands affected, and bring the appliances into the city in lots of a carload or more from sources outside Cleveland or Ohio, it was said.

Skepticism of distributors over the probable future of the law, and their unwillingness to adopt a united practice were given as reasons for the association's attitude in the matter. Many distributors, it is said, believe the law unconstitutional and in violation of the anti-trust statutes, and give this as the reason for their unwillingness to cooperate.

Association members, however, contend that until the law is declared unconstitutional it should be given a trial. The law permits contracts on resale prices, and provides that such prices shall be the lowest at which goods of this type may be lawfully sold.

Membership of the association at present, it is said, is composed mainly of neighborhood and specialty stores. The larger department stores are reported as being in sympathy with the move, but so far none of them have joined the organization.

Milwaukee Bureau to Continue Ad Drive Throughout Fall

MILWAUKEE—The intensive newspaper advertising campaign run by Milwaukee Electric Refrigeration Bureau in the interest of local dealers will be continued on a reduced scale through the months of September, October, November, and December, according to F. W. Greusel, manager.

The Bureau opened its campaign in June with weekly advertisements in each of Milwaukee's three papers. The same schedule was maintained during July.

Sales resulting from this advertising drive made advisable the continuation of the campaign, Mr. Greusel says.

400 Ranges, Water Heaters Sold by 3 Indiana Men

ELKHART, Ind.—In a highly competitive gas area three salesmen have sold approximately 400 electric ranges and water heaters since Jan. 1, reports Robert Mudge, sales supervisor of the Elkhart division of the Indiana and Michigan Electric Co.

Two of the salesmen, R. T. Bedenkop and Mr. Gothia, work the city of Elkhart, with 34,000 population, while Carl Schonig contacts rural customers.

Mr. Bedenkop is high man to date with 150 range and water heater sales. On one day he sold six ranges.

'Shoppers' Check on San Diego Price Agreement

SAN DIEGO, Calif.—Undercover "shoppers" are being employed here to keep in effect a dealer-distributor agreement on list price maintenance and trade-ins.

Dealers claim that the "shopping service," inaugurated some time ago, has eliminated a tremendous amount of price cutting.

The program is under the sponsorship of a joint committee of dealers and distributors. The agreement between the dealers and the distributors provides that established prices be adhered to, and limits trade-ins on ice boxes or other items to 3% of the list price.

The shopping service is under the direction of a dealer chairman. Dealers meet weekly as do the distributors. Shopping reports are read at both meetings, and practices that need correction are brought to the attention of the proper person.

Financing of the shopping service is handled on a joint basis by dealers and distributors interested in the price-maintenance program.

Sidles Co. to Handle Airtemp Systems

OMAHA—Sidles Co., appliance distributor here, was recently appointed distributor for Airtemp, Inc., in Nebraska, Iowa, and a portion of South Dakota.

M. J. Stevenson, a Dayton engineer, will act as general manager of the new division. Other officials are M. J. Murphy, Omaha branch manager; C. Z. Woodworth, sales engineer; and A. C. Brown, retail sales supervisor.

In Omaha the personnel will include five salesmen, three sales engineers, and three resident supervisors. A large staff of sales engineers, supervisors, and service men will operate from branches at Lincoln, Norfolk, Hastings, Grand Island, North Platte, and Scottsbluff in Nebraska; and from Des Moines, Atlantic, and Sioux City in Iowa, Mr. Stevenson reports.

Direct mail advertising to consumers, builders, and architects, and a newspaper advertising drive in Omaha, Lincoln, Des Moines, and Sioux City are included in the promotion plans of the company.

Texas Dairyman Tests Effect of Cooling on Milk Producers

BEAUMONT, Tex.—Joe Blondin, dairy farm owner here believes that cooled brows make contented cows. He has installed two blower fans in his barn to cool his stock during milking hours.

Blondin, who is testing to see if the air cooling increases milk production, said of his idea:

"A cow can't give her best milk if she is uncomfortable."

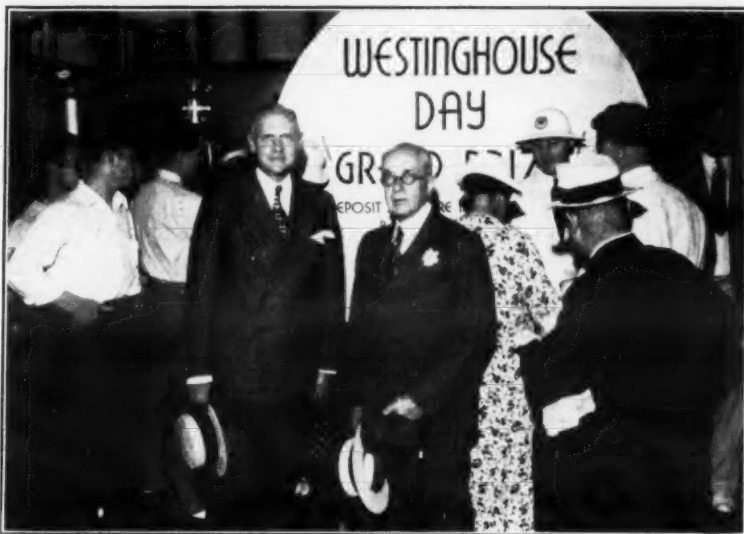
Kelvinator Bottle Unit Wins Design Award

DETROIT—Because of its "compactness, capacity, and high-speed cooling, combined with beautiful appearance," the Kelvinator bottled beverage cooler was cited as the "Best Design of the Month" by Walter von Nessen in the current issue of *Electrical Manufacturing* magazine. Mr. von Nessen, a recognized authority in the field of design, is designer for Chase Copper & Brass, A. H. Helsey, Testrite Instrument, Efcelite, and Miller companies.

Feature of the new beverage cooler is a patented top design which eliminates lid-lifting. The lids glide over each other on rollers; both lie flush when closed.

A vending attachment of new design has been added, accommodating 6 to 12-ounce bottles and allowing removal only by insertion of a coin. The customer selects his drink, and moves the bottle down the center channel to a gate, which will open and allow the bottle to pass only after a coin has been inserted.

The cooler is available in three colors: red, white, and Nile green.

'Westinghouse Day' at Cleveland Fair

Vice President A. E. Allen (left) and President F. A. Merrick led more than 10,000 Westinghouse employees from Pennsylvania and Ohio in observing "Westinghouse Golden Jubilee Day" at Great Lakes Exposition.

Coming Features**TENTH ANNIVERSARY NUMBER—SEPT. 9**

A review of the important events which have characterized industry progress during the past ten years.

INDUSTRY PIONEER NUMBER—OCT. 7

A tribute to individuals who have pioneered in the development of the refrigeration and air-conditioning industries.

PRODUCT DEVELOPMENT NUMBER—NOV. 4

A survey of the significant improvements in refrigeration and air-conditioning equipment, parts, materials and supplies.

FOREIGN TRADE NUMBER—DEC. 2

An appraisal of the present foreign market for refrigeration and air conditioning and its future opportunities.

AIR CONDITIONING NUMBER—JAN. 6

An analysis of the accomplishment to date in selling air conditioning to the public, with discussions of the industry's problems by leaders in the field.

Sales of All-Electric Kitchens Show Increases As Modernizing Bureau Programs Take Effect in 44 Cities

NEW YORK CITY — Forty-four local branches of the National Kitchen Modernizing Bureau in 28 states are carrying out elaborate programs of promotion toward the sale of all-electric kitchens, reports to National Electrical Manufacturing Association indicate.

Boston has laid out a three-year program including more than \$15,000 worth of advertising this year. Kitchen planning promotion includes a prize contest for homemakers and another for architects. Model kitchens, kitchens on wheels, a complete kitchen planning service, direct mail advertising and window and counter display material promote the program.

More than 1,400 all-electric kitchens have been installed in Washington, D. C., through the efforts of the Electric Institute, and entry blanks to a planning contest were recently mailed to 130,000 residents.

Twelve model electric kitchens have been opened at Buffalo, and six more are in preparation, the bureau there reports. Newspaper advertising supports the program.

Chattanooga also has its model kitchen and planning service and has approved a prize contest on kitchen planning.

In Denver, an intensive newspaper campaign and radio broadcast is publicizing the model kitchens and the planning service. The Electric League of Colorado is encouraging the formation of local bureaus throughout the state.

Miami is centering its promotional effort in newspaper and radio adver-

tising, and is conducting an intensive 13-week sales drive.

With one kitchen planning contest just completed in Knoxville, another is being arranged which will be backed by a heavy advertising schedule, the sponsors say; model kitchens and planning service will be used as promotion aids.

In Omaha, likewise, newspaper and radio advertising is part of the schedule to stimulate interest in the prize planning contest. Trained attendants are in charge of the model kitchen and planning service.

A new form of promotion is being used by the Electric Association of Philadelphia, where a program is being laid out to get all-electric kitchens in the homes built by speculative realtors, and in groups of homes which are in the hands of receivers being remodeled for sale. Such kitchens have been installed in more than 200 homes during the last three months. Special classes in kitchen planning also are being sponsored by Electrical League of Rhode Island in Providence.

At a recent meeting at Northampton, Mass., New England utility company representatives discussed a plan for providing a centralized kitchen planning service to be available to any dealer or utility in New England at nominal cost. They further proposed to establish a local bureau in every community of 5,000 or more.

Both the Electric League of Pittsburgh and the Electrical League of Milwaukee have taken on kitchen modernizing as a major activity, their officials say.

Gibson Willing To Cooperate in Warranty Move**Offers Birmingham Bureau Help in Reducing Terms To Reasonable Time**

BIRMINGHAM, Ala.—Gibson Electric Refrigerator Co., in a letter to the Birmingham Electric Refrigeration Bureau signed by President Charles J. Gibson, has pledged cooperation to the bureau in its movement to have guarantees on refrigerators limited to a reasonable time, it was reported last week.

Copies of a resolution passed by the Bureau, asking refrigerator manufacturers to agree on a one-year guarantee, had previously been sent to all manufacturers and to the Household Refrigeration Section of National Electrical Manufacturers Association. (ELECTRIC REFRIGERATION NEWS, Aug. 12.)

In the resolution, it was contended that the long guarantees now offered put too heavy a burden on dealers and distributors. Customers, dealers said, expect free service on the units for the period of the guarantee, and particularly during the payment period.

Individual dealers in Birmingham have also registered a protest against the plan of selling refrigerators at the Christmas season with no down payment, and with the initial payment deferred until March 1. Too many repossession resulted from this plan last year, they claim.

The Bureau as a body has taken no action on this subject, deciding to allow dealers to follow plans for the fall as outlined by their respective manufacturers.

Touring Convention to Replace Usual Factory Meeting, Says Haugh

JACKSON — Personalized conventions on wheels will soon replace the annual factory convention with its smoke-filled rooms and distracting noises, in the opinion of Arthur T. Haugh, general sales manager of Sparks-Withington Co., who recently returned from a 30-day merchandising tour through 21 states.

With the "Sparton Special," a Pullman equipped with an exhibit of the company's 1937 line of radios, Mr. Haugh says he obtained personal contacts in the field and heard reactions, opinions, and new ideas in a way impossible at the usual convention. The car left Jackson July 4, traveled approximately 7,000 miles, and visited 29 key cities.

Mr. Haugh had a regular office aboard, complete with the entire line of new models. Distributors and dealers and their wives were invited aboard the train, and, with his wife acting as hostess, the sales manager entertained them.

A staff of nine traveled with Mr. Haugh so that office routine was taken care of, and zone managers were taken aboard to travel with the coach in their districts. In each city, school sessions were conducted to train local salesmen.

Approximately 1,500 new dealers and several distributors were signed up during the trip, Mr. Haugh said, and orders for nearly \$1,000,000 worth of new business taken.

Chicago, St. Louis, Denver, Salt Lake City, Boise, Portland, Seattle, Oakland, San Francisco, Los Angeles, El Paso, Dallas, Houston, New Orleans, Memphis, Cincinnati, Columbus, Dayton, Cleveland, and Toledo were among the cities visited.

EHFA Terms Extended To Three More Towns

WASHINGTON, D. C. — Contracts providing for cooperation in the financing of electrical appliance purchases by customers of the municipal power plants of Jacksonville, Fla., Lansing, Mich., and Ft. Wayne, Ind., have been completed by Electric Home & Farm Authority.

This brings to seven the number of communities in which EH&FA is operating besides the Tennessee Valley, in which it was started.

The other municipalities served are Springfield, Ill., Hartford, Conn., Griffin, Ga., and Richmond, Ind.

More Effective Demonstration; Engineering Knowledge Make Better Salesmen, Says Lindsay

By Harvey Lindsay
President, Dry-Zero Corp.

Sometime ago ELECTRIC REFRIGERATION NEWS published two letters, one from a housewife asking information on the operating cost of different electric refrigerators and the other from the head of the Electrical Engineering department of the University of Illinois asking what factors housewives should take into consideration when buying a refrigerator.

ELECTRIC REFRIGERATION NEWS answered these letters in a two-column editorial. The substance of the answer was that "it is only necessary for the buyer to lend a willing ear to competitive salesmen, and possibly ask some pointed questions, to pick up all the necessary information needed for practical purposes in making a selection."

It seems to me the answer misses the mark. Haven't these inquirers already listened to competitive salesmen and found themselves enveloped in a fog of competitive claims? Do not all these claims and counter-claims merely arouse skepticism of the value of all refrigerators?

Apparently this is a good guess because the same editorial states: "It seems that a great many people feel that someone who knows all about refrigeration should be ready and willing to give reliable information without charge, or at nominal cost. The whole situation is an interesting development of the extensive use of mechanical appliances in the home and, so far, public education services have not caught up with engineering progress."

Merchandising Has Failed

I can think of no other industry which has waited for "public education service" to keep pace with its engineering progress and lend a hand in the merchandising of its products. It seems to me the "catching up" should be done by the electric refrigeration industry itself, and that it is the industry's merchandising technique which has failed to keep pace with engineering progress.

Consider again the advice to listen to the eloquence of competitive salesmen. Are automobiles, radios, vacuum cleaners or washing machines merchandised solely upon the eloquence of salesmen? Of course not.

When a man sets out to buy a low-priced automobile he "looks at all three"; he rides in all three; he drives all three. He also listens to three competitive salesmen, but what each

says carries less weight with the prospect than what he has learned from driving each car himself. The same holds true, of course, for radios, washing machines, vacuum cleaners, and almost every similar product.

In the merchandising of all these products the sales talk is subordinate to actual demonstration of the product's capabilities. Demonstration is the foundation upon which merchandising is based.

That this is not true of electric refrigerator merchandising is due to the peculiar nature of the product. Its qualities do not lend themselves to obvious demonstration. Perhaps that is why such stress has been placed upon gadgets, conveniences and style, rather than upon fundamentals.

The difficulty of easily demonstrating a refrigerator's worth also is responsible for the periodic agitation for the adoption of performance rating tests to reveal the facts regarding the fundamental qualities of each particular refrigerator.

Four or five years ago I felt that such tests were desirable to help manufacturers of efficient, durable refrigerators to sell their products in competition with less worthy and cheaper refrigerators. Since then I have come to realize that the rating of refrigerators, even by an unbiased authority, is neither acceptable to the philosophy of American business nor is it certain to the development of two fundamental merchandising ideas.

1. The development of showroom demonstration methods comparable to those used for other products.

2. The education of retail salesmen in the essential facts and engineering principles which determine the degree of quality of every electric refrigerator.

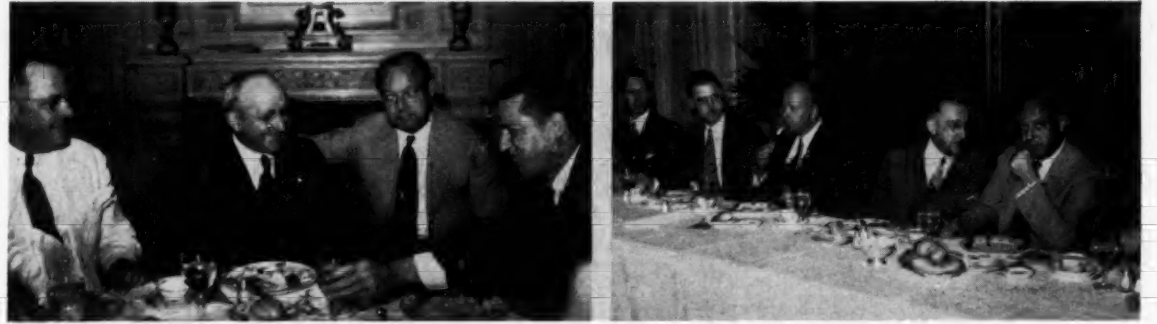
Demonstrations Difficult

Demonstrations to prove refrigerator quality before the prospect's eyes are easy to suggest but difficult to accomplish. It is simple for the vacuum cleaner salesman to show the housewife how much dirt his machine will suck out of a rug but it is entirely another matter to demonstrate to her the three things she is most interested in knowing about an electric refrigerator—its ability to keep food at the proper temperature; its economy of operation; and above all, the performance of these characteristics over a period of years.

The first point, of course, is easy to demonstrate. A thermometer placed on the inside of the cabinet will do the trick.

Demonstrating the second point is more difficult. It is true that a wattmeter attached to the refrigerator will reveal the amount of current consumed over a week or month. Unfortunately the ordinary wattmeter is a curiously inanimate, undramatic object. It keeps no written record, and the prospect must take the salesman's word for the length of time represented by the readings. Nevertheless, the wattmeter is being used by many dealers and is certainly a long step in the right direction.

At General Household Utilities Reorganization Banquet



Left: Fred H. Wiebe, sales manager, Brown Supply Co., St. Louis; C. E. Whitehill, board chairman, Banner Furniture Stores of Indiana; President William C. Grunow; and W. C. Griffith, Griffith Distributing Co., Indianapolis. Right: Lt. Comm. F. H. Schnell, engineer; M. W. Kenney, engineering director; Sales Manager H. J. Shartle, W. L. Eckhardt, director of sales, and Mr. Grunow.

Graphic Record Shown

Best demonstration of this sort was first used about three years ago. It consisted of two low-priced practical recording thermometers, one placed inside the refrigerator and the other outside, and an operation recorder, which charted a record of the number of times the refrigerating mechanism started and stopped and showed the intervals between.

These three instruments kept a graphic record which the prospect could see at a glance, something which cannot be done with ordinary thermometers and wattmeters.

The demonstration problem becomes really complex, however, when an attempt is made to visualize refrigerator durability. Durability is not only a matter of how long a refrigerator will last, but is largely a matter of how efficiently and economically it will perform after several years of use.

This is a matter of fundamental interest to all purchasers. They expect to use a refrigerator many more years than a car or radio. The fact that a refrigerator performs efficiently and economically during its first year or two of operation is small comfort if in its later life it becomes a gluttonous consumer of electricity.

At this point appears the primary difference between good and bad refrigerators and here also appears not only the need for dramatic methods of demonstration, but also the necessity of equipping retail salesmen with sufficient knowledge and engineering background to enable them to explain the qualities which make refrigerators as economical and efficient in their later years of service as they are at the beginning.

Lack of Knowledge Hinders Growth

Lack of forceful demonstrations and sufficient knowledge of the fundamental functioning of electric refrigerators is handicapping the industry's retail salesmen and through them the industry's growth.

The selling technique which puts major emphasis on smart styling, fine finishes and useful gadgets is the only way of building sales for refrigerators which lack the intestinal fortitude that means true quality. But such methods cannot stand up against merchandising of good products based on demonstration plus sales arguments backed by full and adequate knowledge of the facts that make refrigerators good or bad. Certainly positive demonstration of quality, plus selling eloquence based upon sound and complete information, will benefit the industry as a whole.

Classes Help Sales For Kelvinator Firm

GASTONIA, N. C.—A series of refrigerator forum classes, new small-group promotion advocated by the Kelvinator home service department, has meant increased sales and added prospect names for Moore & Stewart, Inc., Kelvinator distributor here, whose home economist, Miss Emma Fritz, has held a number of classes recently to aid dealer salesmen.

Put on at a low cost, these classes have as their central purpose the detailed explanation of what the purchaser should look for in buying an electric refrigerator, and an attempt to show how the refrigerator being merchandised meets the eight point requirements.

With a complete display of Kelvinator models arranged around the room, Miss Fritz uses the booklet "How to Select an Electric Refrigerator," and other pieces of Kelvinator literature, in putting on her classes. She has been holding two or three forum classes each week for dealers in the territory covered by the distributor.

Westinghouse Department Headed by McKibbin

EAST PITTSBURGH—J. M. McKibbin has been appointed manager of the newly created sales promotion department of Westinghouse Electric & Mfg. Co., N. G. Symonds, vice president in charge of sales, announced.

Mr. McKibbin will direct the activities of district office sales promotion managers. All apparatus sales promotion operations other than those for the company's merchandising department will be coordinated under his department.

Prior to this appointment Mr. McKibbin was manager of promotion for all industries in which Westinghouse equipment is used. Employed by Westinghouse since 1920, his earlier positions included that of sales promotion manager of the Cleveland, Detroit, and Pittsburgh sales offices.

Guy & Lynch Transferred By Westinghouse

BIRMINGHAM, Ala.—C. H. Guy and Bob Lynch, formerly at the Mansfield headquarters of Westinghouse Electric & Mfg. Co., were recently transferred to the South Central district with headquarters here, announces R. M. Imhoff, sales manager of the merchandising division.

Mr. Guy, formerly utility supervisor, is now merchandise manager in the South Central district, and Mr. Lynch, of the merchandise advertising department, is in charge of sales promotion in the same territory.

October to be "Electric Buffet Service Month"

NEW YORK CITY—Capitalizing on the popularity of buffet serving, Edison Electric Institute and cooperating electrical manufacturers will sponsor an extensive promotional campaign during October, which has been designated Electric Buffet Service Month, in which dealers in electrical housewares everywhere will be invited to participate.

Contributing members of the National Electrical Manufacturers Association and their distributors will back the program in which virtually every department store, central station, and utility dealing in electrical housewares will take part.

Headed "Smart hostesses use electric buffet service," a poster portraying a dinner-gowned housewife, standing before a buffet laden with electrical appliances (toaster, grille, chafing dish, and percolator) will be distributed for window display purposes.

Arrangements have been made with the General Foods Corp. to include an announcement of Electric Buffet Service Month on their Maxwell House Show Boat, Log Cabin Syrup, Sanka Coffee, and Jell-o radio programs. In addition to this, newspaper releases, mats for local advertising, and stickers will be used to publicize the campaign.

WANTED

Household Refrigerator Engineer who can qualify as assistant chief engineer. Age 27 to 40. Technical Education. Must have experience in Mechanical Unit design and some knowledge of cabinet design.

Write J. Henry Schroeder, Vice President, Sunbeam Electric Mfg. Co., Evansville, Indiana.

"AN OLD NAME IN A YOUNG INDUSTRY"

CURTIS

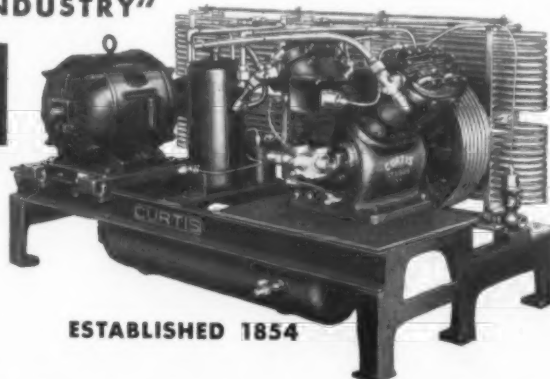
A Complete Line—86 Units

Fair Policy—82 Years' Successful Merchandising

Quality Workmanship—42 Years' Building Compressors

Financial Stability—AA1 Highest Capital & Credit Rating

Proven Design—14 Years' Building Refrigeration Units



ESTABLISHED 1854

Only by Building Permanently on This Complete Combination Can You Secure Sure Profits in This Fast Growing Industry—



Air View of Curtis 20 Acre Plant

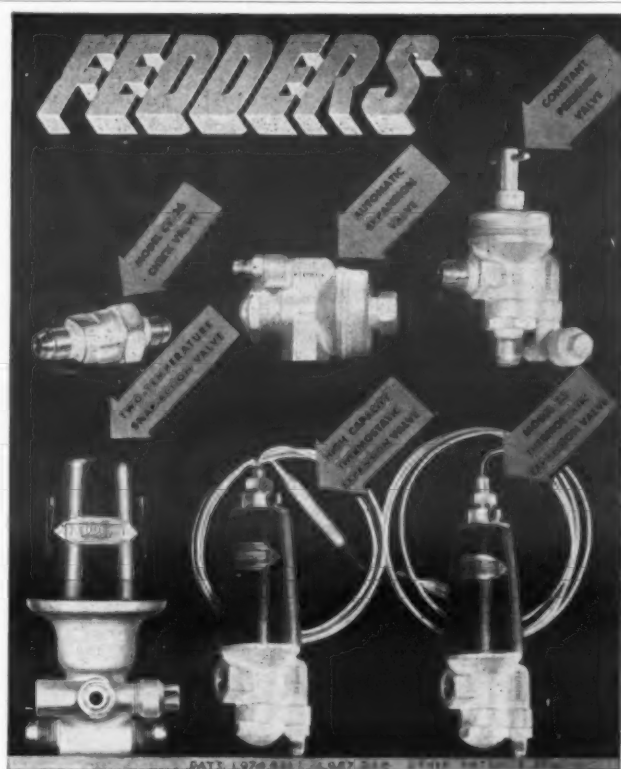
Curtis is a well integrated institution, having its own gray iron foundry, brass foundry, machine shop, pattern shop, tool room, electric welding department, structural shop and power plant.

CURTIS REFRIGERATING MACHINE CO.

Division of Curtis Manufacturing Co.
1912 KIENLEN AVENUE • ST. LOUIS, MISSOURI

In Canada:

CANADIAN CURTIS REFRIGERATION CO., LTD.
20 George St., Hamilton, Ont., Can.



VALVES

Engineered FOR Refrigeration Engineers BY Refrigeration Engineers

Sold by Representative Suppliers Everywhere

FEDDERS Manufacturing Co. BUFFALO, N. Y.

ATLANTA BOSTON CHICAGO CINCINNATI DALLAS LOS ANGELES NEW YORK PHILADELPHIA

Coils
Drain Baffles
Unit Coolers
Household and Heavy Duty Evaporators
Ice Cube Makers
Heat Interchanger Fittings
Condensers

Closely Controlled Sales Campaign Using Phone Solicitation With Follow-Up by Junior Salesmen Keeps Sales Rolling All Summer for Rackliffe Bros.

NEW BRITAIN, Conn.—A carefully planned program of telephone solicitation and follow-up calls by junior salesmen conceived and directed by Salesmanager George Godfrey is sending summer sales to new high marks in the territory covered by Rackliffe Co., Inc., Kelvinator distributor for Connecticut and western Massachusetts.

Like all Godfrey-inspired promotions, this one is being managed from start to finish out of Rackliffe's headquarters office. Announced to dealers early in July, the program previously had been worked out for two weeks in Rackliffe's Sales Institute.

Hire Telephone Salesgirls

First step in the plan was to hire two telephone salesgirls for the purpose of conducting a Kelvinator phone solicitation. A working time of about five hours daily was established—from 9:15 to 11:15 in the morning and from 1:15 to 4:15 in the afternoon. The girls were paid a salary of \$9 per week plus \$1 bonus for every sale resulting from the phone solicitation.

Routine of the solicitation calls was as follows:

"Good morning, Mrs. Jones? (Pause for a moment until certain that Mrs. Jones is on the phone.) This is Miss Case speaking. I am calling from the Educational Department of Kelvinator Corp.

Procedure Followed

"Are you using an electric refrigerator in your home? (If the answer is yes, the make is asked and coded in the telephone book, and the housewife thanked for the information. If not, procedure follows:)

"I have your name on our list as one who might be interested in an electric refrigerator. I called to inform you that a valuable little booklet has just been released on the subject of electric refrigerators. I am sure, Mrs. Jones, that you will find that this booklet will aid you in selecting your refrigerator, and will show you how to get your money's worth when you do decide to buy.

Distribute Ross Roy Handbook

"This booklet is not a piece advertising literature. As a matter of fact, it doesn't mention any refrigerator by name. It is published by the Ross Roy Service, Inc., a famous research organization, and our company has purchased a quantity of these booklets for the purpose of distributing them to a few chosen people in the city of New Britain.

"There is no cost for this booklet, and I wonder if you would give me permission to send one to your home. I assure you there is no obligation. Thank you."

After the program had been in progress for a week, a check-up showed that each girl could make an average of 100 telephone calls per day. Of these 100 calls, 75 were successful as prospect contacts; of the 75, 15 were interested enough to request a copy of the booklet, "How to Select an Electric Refrigerator."

814 Want Booklet

By July 28, when the last check was made, the two girls had called every one of the 7,000 residential phones in New Britain, had located and talked to 3,727 women, of whom 1,500 had electric refrigerators. Of the remaining 2,227, a total of 814, or 36%, said they would like to receive the booklet.

Their first canvass done, the girls were set to re-checking and calling all the "outs" shown on the first round of New Britain homes.

While this part of the program was in progress, Rackliffe called in four local Kelvinator dealers, let them listen to the girls at work, then began handing out leads to their salesmen.

Without any special training to salesmen preliminary results showed one sale to every 15 booklets delivered.

From this evidence Mr. Godfrey and Fred Rackliffe, vice president of the company in charge of refrigeration activities, began to revise the program in an effort to arrive at higher percentage of sales per call. After consultations with Kelvinator district managers it was decided to hire, for

each dealership, a sufficient number of college undergraduates to act as "junior salesmen."

Payment Scale Established

Payment scale for these workers was established as follows:

For each booklet given out signed for by the prospect, the salesman receives 10 cents; for each night home demonstration or dealer's showroom demonstration arranged, 25 cents; for each Kelvinator sale made, a bonus of \$1 per cubic foot.

In arriving at the commission rate it was assumed that the dealer was willing to pay 10% commission for sales. Since preliminary records showed one sale to 15 calls, it was considered safe to base the rate on an assumed ratio of one sale in 35 calls.

To illustrate: one K-6 at 10% commission equals \$19.95.

Thirty-five calls at 10 cents per call equals\$3.50
Thirty-five "How to Select" booklets52
Thirty-five "Economy" booklets50
Three night demonstrations at 25 cents75
One K-6 Sale bonus 6.00

Total dealer cost\$11.27

A reserve of \$8.68, the difference between the dealer's cost and the regular 10% commission of \$19.95, is used to pay the regular salesman for his assistance in closing the sale for the undergraduate junior salesman.

Obtaining Junior Salesmen

To obtain junior salesmen Rackliffe inserted the following want ad in Hartford, Conn., newspapers:

"Attention: College Undergraduates. If you are desirous of earning enough money to complete your college education, see Mr. George L. Godfrey at the Hotel Bond, who has a plan directly associated with the electric power industry. Your personal references and standing in the community will govern your selection for this special 60-day educational activity. Assured daily income and bonus and no canvassing. Mr. Godfrey will interview by phone appointment only."

There are two reasons for using this type of advertising to obtain men, Mr. Rackliffe points out.

"In the first place, an ordinary want ad fails to produce satisfactory results; second, the type of men secured through an ordinary want ad are too well educated on sales to accept our policies.

"We find that the college undergraduate is a definite part of his community; he may be the future salesman of America. He has been trained to learn, and he is very anxious to make enough money to complete his schooling."

What Happens to Salesmen

Anxiety to earn money, however, is not the basis of good salesmanship, Rackliffe records reveal. By way of interesting statistics on "what happens to salesmen after they're hired," the following results are reported:

Of applicants accepted, approximately 97% leave the dealerships within three days from the date of employment; 2% struggle along for a week or more; 1% carry on for a month, or longer, and only half of this 1% develop into satisfactory sales people.

"Fully 90% of the sick, lame, and lazy," Mr. Rackliffe estimates, "fail because of lost motion."

The undergraduates are given a one-day course of training. It is definitely understood that they are not salesmen; under no circumstance are they allowed to sell.

"Experience has proven to us," says Mr. Rackliffe, "that even though we are successful in securing man-power, and even though these men are well trained, our whole build-up will topple unless the men are properly directed.

"Hiring and training these men has always been an easy matter—directing them properly is the thing that throws us.

"The use of our failures can be felt in these terms. The greatest percentage of these men fail because they lack a satisfactory knowledge of

Kelvinator and of the duties which make Kelvinator salesmen successful. Most of all they lack proper direction and leadership from our department heads.

"It is only natural if these men lack knowledge and are under poor direction that they should soon lose interest."

Success or failure of any sales department, in the opinion of the Rackliffe sales head, is measurable by the following laws governing specialty selling:

1. Do I have sufficient manpower?
2. Do I hold inspiration sales meetings every work-day morning?

3. Where do my salesmen go after the morning meeting?

4. How well do they perform as (Kelvinator) showmen when they reach the prospect audience?

5. What plan have I to offer in assisting them to cross the threshold?

Let's see how the Rackliffe telephone solicitation plan stacks up alongside these principles:

Basis of the company's sales program is adequate manpower; and daily sales meetings are an integral part of the sales directional routine. (ELECTRIC REFRIGERATION NEWS, June 3.)

The telephone solicitation has crossed the threshold of 99% of the

homes called, eliminating that dread task known as "canvassing." It has also divided the good from the bad—it has given the dealer the names of people who can afford to own a telephone, but who do not own an electric refrigerator—it has given a list of definite prospects, and supplied salesmen with a schedule of definite appointments.

The college undergraduate salesmen has been selected; he has been given a day's intensive training; he understands that he is merely to pave the way for the sale . . . the actual close will be made by a member of the

(Concluded on Page 4, Column 1)

THE MORE EXPENSIVE THE REFRIGERANT THE MORE LOGICAL THE SPECIFICATION OF KEROTEST VALVES AND FITTINGS AND ACCESSORIES . . .

As a Manufacturer—

Do you know that the loss caused by the failure of one single refrigeration valve or fitting in a single installation will pay many times the slight additional cost of Kerotest Quality Valves and Fittings for other units serving the entire territory?

As a Field Service Engineer—

Consider the advantages of a repair job well done. If your work is

guaranteed, don't jeopardize your good intentions with cheap, inferior replacement valves and fittings. Build goodwill with genuine Kerotest Valves and Fittings.

That is why it pays to specify Kerotest—the most economical valves and fittings obtainable . . . made to serve long and faithfully—the standard of value throughout the refrigeration industry.

KEROTEST MANUFACTURING CO.
PITTSBURGH, PA.

KERO TEST

Jobbers with Local Stocks

Albany, N. Y. Hey & Co.
Allentown, Pa. General Refrigeration Supply Co.
Atlanta, Ga. J. M. Tull Metal & Supply Co., Inc.
Baltimore, Md. Melchior, Armstrong, Dessau Co.
Baltimore, Md. Melchior, Armstrong, Dessau Co.
Binghamton, N. Y. Service Supply Co.
Boston, Mass. A. E. Borden Co.
Bridgeport, Conn. Parsons Bros.
Brooklyn, N. Y. Coleman Electrical Supply Co., Inc.
Brooklyn, N. Y. Melchior, Armstrong, Dessau Co.
Buffalo, N. Y. Root, Neal & Co.
Cambridge, Mass. Melchior, Armstrong, Dessau Co.
Chicago, Ill. H. W. Blythe Co.
Chicago, Ill. Max A. R. Matthews
Chicago, Ill. Borg-Warner Service Parts Co.
Chicago, Ill. Refrigeration Equip. & Supply Co.
Chicago, Ill. Fred C. Kramer Co.
Cincinnati, Ohio The Merkel Bros.
Cincinnati, Ohio Williams & Co., Inc.
Cleveland, Ohio Williams & Co., Inc.
Columbus, Ohio The Justus & Parker Co.
Dallas, Texas The Electromotive Co.
Dayton, Ohio Republic Electric Co.
Denver, Colo. Auto Equipment Co.
Des Moines, Iowa C. L. Percival Co.
Detroit, Mich. J. M. Ober, Inc.
El Paso, Texas Zork Hardware Co.
Farmington, N. H. Fargo Foundry Co.
Farmington, N. H. Enochs Sales Co.
Fort Wayne, Ind. H. J. Schroeder Co.
Ft. Worth, Texas McKinley Refrigeration Supply Co.
Greensboro, N. C. Home Appliance Service Co.

Harrisburg, Pa. Melchior, Armstrong, Dessau Co.
Hempstead, Long Island, N. Y. Home Oil Burner Corp.
Honolulu, T. H. Theo. H. Davis & Co., Ltd.
Houston, Texas D. C. Lingo Co.
Houston, Texas Walter Refrigeration Supply Co.
Indianapolis, Ind. F. H. Langenkamp Co.
Kansas City, Mo. Fordlund Pump & Machinery Co.
La Crosse, Wis. W. A. Roosevelt Co.
Long Beach, Calif. L. B. Marsh
Los Angeles, Calif. Refrigeration Service, Inc.
Macon, Ga. Lowe Electric Co.
Memphis, Tenn. United Refrigerator Supply Co.
Milwaukee, Wis. Chase Brass & Copper Co., Inc.
Minneapolis, Minn. Chase Brass & Copper Co., Inc.
Minneapolis, Minn. Refrigeration & Industrial Supply Co., Inc.
Montreal, Quebec, Canada Railway & Engineering Specialists, Ltd.
Newark, N. J. T. W. Binder Co.
Newark, N. J. McIntire Compressor Co.
New Orleans, La. Enuchs Sales Co.
New Orleans, La. The Spangler Co.
New York, N. Y. Actna Supply Co.
New York, N. Y. Melchior, Armstrong, Dessau Co., Inc.
New York, N. Y. Paramount Electrical Supply Co.
Oklahoma City, Okla. Midco Supply Co.
Omaha, Nebraska United Supply Co.
Peoria, Ill. Isaac Walker Hardware Co.
Pittsburgh, Pa. Williams & Co., Inc.

Philadelphia, Pa. Melchior, Armstrong, Dessau Co., Inc.
Providence, R. I. Rhode Island Supply & Engineering Co.
Puerto Rico, San Juan Refrigeration Supply Co.
Rochester, N. Y. Ontario Metal Supply, Inc.
Rochester, N. Y. Melchior, Armstrong, Dessau Co., Inc.
St. Joseph, Mo. Bristol Supply Co.
St. Louis, Mo. The Spangler Co.
Salt Lake City, Utah Peerless Utah Co.
San Antonio, Tex. Straus-Frank Co.
San Francisco, Calif. California Refrigerator Co.
Sacramento, Calif. J. N. Blair Co.
San Juan, Puerto Rico Refrigeration Supply Co.
Seattle, Wash. Refrigerative Supply Co.
Sioux City, Iowa National Refrigeration Service
Springfield, Ill. United States Electric Co.
Springfield, Mass. C. P. Payson Co.
Syracuse, N. Y. Syracuse Supply Co.
Toronto, Ont., Canada Railway & Engineering Specialists Co.
Tulsa, Okla. Machine Tool & Supply Co.
Vancouver, B. C., Canada Fleck Bros., Ltd.
Washington, D. C. Refrigeration Supply Co.
Waterloo, Iowa Winterbottom Supply Co.
White Plains, N. Y. County Seat Plumbing Supply Co., Inc.
Wilkes Barre, Pa. Radius Service Co.
Winnipeg, Manitoba, Canada Railway & Engineering Specialists Co.

COPELAND
Dependable
ELECTRIC REFRIGERATION

COPELAND REFRIGERATION CORP. Holden Ave. at Lincoln · DETROIT

Rackliffe Bros. Summer Strategy Nets 3 Night Appointments Out of Every 10 Contacts Made

(Concluded from Page 3, Column 5)
dealer's regular sales staff.

He is now ready to be turned loose but not with just a hope or prayer—because: (1) He knows where to go; (2) He knows what to do; (3) He knows how to do it. These three factors represent knowledge, interest, and direction.

He is equipped with 10 "How to Select an Electric Refrigerator" booklets; 10 "The Requirements are Met" circulars; 10 "Economy" booklets, and 10 names, secured by phone solicitation.

Now, watch how he works:

He reaches the first prospect.

"Good morning, Mrs. Jones. My name is Williams; I represent the educational department of Kelvinator Corp. Yesterday, our Miss Case called you about our little booklet, 'How to Select an Electric Refrigerator.' Miss Case suggested that I personally bring the booklet to you.

"This booklet, Mrs. Jones, was not put out by Kelvinator Corp. May I step in long enough to explain how you may benefit from its use?"

(Rackliffe records show that this is a sure-fire door-opener.)

"On this last page, Mrs. Jones, you will notice there is a summary of the things you should consider when you purchase your electric refrigerator. For instance, you will notice the first one, appearance; select a refrigerator that will blend into your kitchen. Jutting projections and other harsh lines detract from beauty; on the other hand, extreme styles soon become tiresome.

"Turning to page 6, notice that it deals with beauty alone. I should like to help you further, Mrs. Jones, by qualifying Kelvinator, point by point, with the help of this little circular.

(Introducing 'The Requirements are Met' circular.)

"I am sure that after you have acquainted yourself with the fact that Count Alexis de Sakhnoffsky, the famous designer, assisted Kelvinator engineers in creating this year's line of cabinets, you will agree with me that Kelvinator is the most beautiful refrigerator the world has ever known."

This conversation leads Mrs. Jones and himself into the kitchen, where he produces the "Economy" circular and briefly qualifies the housewife on the Kelvinator economy story.

In presentations which reach this point, Rackliffe's junior salesmen report that the housewife's acceptance has, in practically all cases, reached the following state:

(1) She is willing to listen to proof; (2) She admits quantity buying is cheaper; (3) She is surprised to learn that she can afford a Kelvinator.

Upon completion of this part of the presentation, the junior salesman tells the housewife that there are two sections to this "educational program." His work is completed, he adds—but he has a friend who works in the other section, which has to do with the Kelvinator mechanism.

He then asks Mrs. Jones if she will permit him and his friend to return that night, to discuss, with her husband, the mechanical features of the Kelvinator unit. The appointment, if made, is turned in to the sales manager, and a regular salesman accompanies the undergraduate to the house that night and does the closing.

Rackliffe records show that the undergraduate is successful in lining up an average of three night appointments out of every 10 demonstrations.

A College-Bred Summer Sales Force Learns Some ABC's



George Godfrey, sales manager of Rackliffe Bros. Co., Inc., Kelvinator distributor in Connecticut and western Massachusetts, holding the first training school of telephone solicitors and college undergraduate salesmen, first two "contact points" in the summer sales campaign which the company is now conducting in its territory.

\$17,294 of Appliances Sold by Display Coach In 1-Year Period

GRAND ISLAND, Neb.—A General Electric pilot kitchen coach used as a traveling display room for working the smaller towns where there are no display offices sold \$17,294 worth of appliances for Central Power Co. in the last year, according to Walter Sinke, merchandise manager of the utility and promoter of the pilot activity.

This sales volume represents 30 electric ranges, 18 water heaters, 80 refrigerators—25 of them Liftops—three ironers, and two washers.

The coach, including the power unit—a Ford coupe—cost \$1,322.76. It is being amortized over a period of 48 months at a rate of \$26 per month.

During 1935 the coach covered 14,901 miles, and 2,806 visitors inspected its electrical equipment. Prospects for electric ranges and water heaters secured by the method numbered 637, Mr. Sinke reports.

Net profit on sales during 1935 was \$5,853; operating cost totaled \$4,326, distributed among dealers' commissions, installation costs, salesman's salary, depreciation, and the salesman's total expense and operating cost. Net profit, after operating expenses were deducted, was \$1,526.

Estimated annual revenue derived from the coach's sales was \$3,233.

Central Power Co. has 33 towns in which contacts are made through the sales coach. Most of these towns have in the neighborhood of 50 customers. Towns having at least 100 customers are contacted once a month.

Since the coach has been in operation, Central Power has authorized seven cooperative dealers to whom the utility's stock of electrical appliances is available under either of two plans.

The first provides that the cooperative dealer may purchase from the utility at a discount of 10% from the cash price. The company agrees to take all responsibility of installation costs, guarantee, and financing on the standard credit plan after proper credit approval.

The second plan allows the dealer to purchase appliances at a discount of 20%, should he desire to purchase outright and assume all responsibility for installation, guarantee, carrying charge, etc.

In addition to sales made, the salesman and the coach were responsible for putting back on the Central Power Co. lines 13 electric ranges, some of which had been out of service for as long as three years.

39 'Hostess Programs' Are Staged by Utility

SAN FRANCISCO — Thirty-nine "Hostess Programs" at which cold cookery schools were held featured the July electric refrigerator campaign sponsored by the Electric Appliance Society of Northern California.

Promoting 15 makes of electric refrigerators, the Pacific Gas & Electric Co. had 63 refrigerator floor displays in as many offices. The utility also sent promotion material on refrigeration with monthly bills to customers.

1,653 Frigidaires Sold by Potomac Edison In 77-Day Sales Campaign

HAGERSTOWN, Md.—Breaking all previous records, the 52 men who comprise the sales force of The Potomac Edison Co. with headquarters here sold 1,653 Frigidaires, totaling approximately \$300,000 during a 77-day campaign. In addition to this the men sold more than 1,000 other major electrical appliances.

George Sanders of the company's Keyser, W. Va., office led the individual salesmen with an aggregate of 97 refrigerators, representing a \$16,000 volume.

Next among the winners was Arthur Dicks, Cumberland, Md., who sold 88 refrigerators amounting to more than \$14,000. Mr. Dicks has been a member of Frigidaires' B. T. U. club for six consecutive years and a National Sales Leader for four years.

District honors in the drive went to Martinsburg, W. Va., whose sales-

men achieved a 307% quota fulfillment. Responsible for this record were R. M. Hall and his three salesmen, A. G. Stokes, who sold 60 units, Robert De Launey with 49, and F. A. Rogers with 46.

The Charles Town, W. Va., district office carried off second honors. Arthur Luttrell, salesman in this area, sold 58 units for a \$10,000 business volume.

An average of \$5.37 in refrigeration sales per customer was reached in this campaign which according to Linwood Kight, general merchandise manager, is far in excess of any per customer record achieved before.

"This brings our figure per customer to about \$12 for the year 1936 (up to July 15)," said Mr. Kight. The company serves approximately 53,000 domestic customers, most of whom are in rural or semi-rural areas.

AIRLINE PRODUCTS... MODERN WATER COOLERS

- 3 to 1000 Gallons per Hour
- Cabinets Complete with Lowsides
- Spear Ice Water Generators
- Efficient Internal Tube Coolers

* Send for Catalog

RICHMOND ENGINEERING CO.
2914 Richmond Street Philadelphia, Pa.



Do you realize that Auditorium has over 25 patents issued and many applications pending? These patents do not represent one particular feature of air conditioning nor are they the achievements of any one man.

THEY REPRESENT THE BEST THOUGHT AND EFFORT OF RECOGNIZED AUTHORITIES IN AIR CONDITIONING

and they cover a large number of desirable features

They are all available to you upon the basis of a comparatively small royalty which is paid by the owner. For this royalty you are enabled to select the best or more desirable features of any or all of the patents for any installation. You receive the benefits of inventions and practices which are considered HIGHLY VALUABLE by Leaders in the air conditioning industry, who have acknowledged the VALIDITY AND GREAT VALUE of the Auditorium patents by becoming Licensees.

You may secure permission from these licensees to use any or all of these devices and practices and you have the prestige of being able to tell the owner that your proposal gives him all the advantages which are being enjoyed in the outstanding air conditioning installations in the country.

The following Licensees are authorized to use or to grant permission to use all Auditorium Patents:

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CARRIER ENGINEERING CORP. Newark, N. J.	THE COOLING & AIR CONDIT- TIONING CORP. (Division of B. F. Sturtevant Co.) Hyde Park, Boston, Mass.
GENERAL ELECTRIC COMPANY Schenectady, N. Y.	YORK ICE MACHINERY CORP. York, Pa.

AUDITORIUM CONDITIONING CORPORATION

New York Office—17 East 42nd St., NEW YORK

Note: All Licensees have bound copies of all Auditorium Patents which are available for reference

condensers evaporators

for electric refrigeration
and air conditioning
applications — domestic
and commercial.

LONG MANUFACTURING DIVISION
BORG-WARNER CORPORATION

LONG

DETROIT, MICH.
WINDSOR, CAN.

Around the World

With George F. Taubeneck

In this issue the editor of ELECTRIC REFRIGERATION NEWS takes readers with him to Palestine, which ranks high among nations importing American refrigeration equipment. This is the thirty-third consecutive issue in which this "World Series" has appeared. Mr. Taubeneck, who recently returned from a seven-months' world tour, is now engaged in writing his impressions of the refrigeration market and general conditions in Spain, France, Italy, Austria, Hungary, Switzerland, Holland, Sweden, Germany, and England. These articles will appear in coming issues.

Palestine—Will It Go 'Boom' Some Day?

Over glasses of good German beer in a Port Said cabaret, I listened to a Greek merchant prince, a wealthy American trader, a cultured French traveler, and an export manager of a United States firm agree solemnly that the business boom in Palestine was going to "faw down and go boom" some day.

The remarkable activity which has hatched the great city of Tel-Aviv out of barren desert sands in a few short years, my companions assured me, was a bubble inflated by speculation, easy to prick, sure to burst. In fact, the current trouble with Arabs, they thought, might be the beginning of the end.

Elsewhere—but never, of course, from a Palestinian—I heard assertions of a similar nature. Tel-Aviv had sprung up too fast, I was told. Its mushroom growth was not healthy; like its buildings, it had only sand for a foundation. As American business men are so fond of saying, it was not "sound."

Such observers reason that Palestine has only a comparatively small strip of fertile land, that it has no great natural resources, that its incubating industries are not in sufficient proximity to raw materials for consequential expansion.

When the building boom dies down, they say, and if and when foreign money ceases to pour in, Tel-Aviv will have left no means of self-support.

Answer Is 'No'

But an intensive, if brief, study of economic and social conditions in Palestine leads this writer to the belief that the disparagers aren't acquainted with the real situation.

It's easy to look at a balance sheet or a set of statistics and predict disaster for a firm, or even for a nation. (Just this sort of thing it was which brought on the costly bank "holiday" of 1933. What's more, it's our strong conviction that this same brand of swivel chair thinking, of executive control based on figures alone was in no small measure a contributing cause of the depression.)

The calamity howlers fail to take these four most important factors into consideration:

1. Tel-Aviv and all Jewish colonies in Palestine are *endowed*. From all over the world contributions are pouring in to Zionist leaders in Palestine, to be used as *capital* for the acquisition of land and its development.

2. Hitler's maltreatment of German Jews has led to an exodus into Palestine of thousands of well-educated, skilled and highly trained engineers and scientists, whose creative abilities must be added to the cash contributions when totaling up Palestine's capital.

3. Jewry in Palestine is largely composed of healthy, happy, energetic young people, who not only have caught the pioneer spirit which built America, but who have in addition a combination of religious zeal, the sort of patriotic fervor which expends itself in *labor* to develop their new country, and an almost fanatical devotion to a common cause.

4. The entire movement is receiving behind-the-scenes counsel, the guidance and judgement of some of the wisest, wealthiest, and most important financiers in the world.

When you put them all together, it seems that the cards are pretty well stacked for the future of Palestine. To recapitulate:

It has a continual influx of cash, which becomes capital for the development of the country.

It has a high order of intelligence, among its newcome citizenry.

It has labor which is working for a cause, instead of wasting energy quarreling with government or employers over "rights." The do-as-little-as-possible-to-get-by spirit, so prevalent elsewhere, has no place in Palestine's Jewry. If it should appear in individuals, mass patriotism would stamp it out.

Jewish financiers and merchants all over the world are supporting the Zionist movement—contributing both brains and cash—because they feel that a country of their own, to which they can go in times of persecution, is a most wise investment.

How can you beat a combination like that?

Trouble in Paradise

Here in the Promised Land the long-oppressed Jews of Central Europe have found a Paradise. Instead of living amongst peoples who are apt to consider the Jews inferior socially, they have come to a land in which the Jews are the superior race from every standpoint.

And that's where—and possibly why—trouble has entered this otherwise pretty picture.

Before Hitlerism gave such sudden impetus to the Zion movement (which may be loosely defined as the resettlement of Jews in Palestine, with a view toward making it the Jewish nation) Palestine was an Arabic country.

True, there were small colonies of Christians and Hebrews there, but the Arabs had things pretty much as they liked them, just as they have had for centuries.

Came then hordes of Jews, with money, ambition, and energy, strong in the knowledge that Great Britain, which administers the affairs of Palestine under a large of Nations mandate, had declared in favor of making Palestine a National Home for the Jews.

With their money they bought land from the Arabs. With their energy and ambition, plus superior training, they made this land immensely more fruitful than it had ever been before. With the acute merchandising genius which is the heritage of the race they established modern retail establishments which far outshone the poor stores of the Arabs. And they reared, on desert sands, a modernistic dream city whose architecture and bustle must have both terrified and affronted Arabic eyes.

Arab farmers hated and feared the Jewish agriculturalists with their modern methods and mechanization.

Arab merchants hated and feared Jewish merchants with their bright, clean, well arranged shops, and up-to-date stocks of merchandise.

Arab priests and devotees of the Mohammedan religion hated and feared the militant renaissance of Hebrew orthodoxy, as exemplified by strict observance of the Sabbath, celebration of traditional Hebrew feasts and ceremonies, and the new dominance of the Hebrew language and alphabet.

Arab landlords hated and feared Jewish employers who raised wages and living standards of Arab laborers. For centuries wealthy Arabian families had dominated Palestine in a feudal economy, a domination which is being rapidly destroyed by Zionists who buy up the land and hire away the former "serf" workers.

Arabs from many walks of life were jealous of the obviously higher standards of living maintained by the Jews, and the new wealth which education and intelligence were wresting from former Arab land.

All this scattered resentment has been crystallized recently by Arab political leaders. Some say that sinister foreign influences encouraged and subsidized this crystallization—possibly to embarrass England, possibly as a result of anti-Jewish sentiment.

Anyway, on the nineteenth of April, 1936, open revolt broke out in Jaffa, Haifa, and many other localities throughout Palestine. Twenty Jews were killed, others were wounded by bullets and daggers. Crops were burned, homes destroyed.

That was the worst of it. But almost daily since that time rocks and bombs have been thrown, crops destroyed, new refugees forced to wander disconsolately into Jewish synagogues in Tel-Aviv for protection and subsistence.

Tel-Aviv Theaters Can Also Be Used as Forts



1. Cinema Ophir (theater), Tel-Aviv, largest air-conditioning installation made in the city by B. N. Petigrow, Carrier-Brunswick distributor. The Petigrow ad may be seen above the doorway. 2. This theater, built like a fortress, may be used as a defense against Arab attackers. 3. Striking example of modern Palestinian architecture.

Following up their terrorism, Arabic leaders decreed a national strike. All shops owned by Arabs were closed. All Arabian laborers quit work. The ports of Jaffa and Haifa practically had to suspend operations, tying up thousands of dollars worth of merchandise in ships and on docks.

Moreover, they made a series of demands upon the British Authority, demands which may be summed up as follows:

1. Prohibition of Jewish immigration into Palestine.
2. Prohibition of sales of land to Jews.
3. A measure of home rule in Palestine, dictated by an administration of Arab nationalists. (Demands of this nature have been so vague and inconsistent that it's difficult to sum them up).

Until these demands are granted, the Arab leaders propose to continue the general strike, plus "civil disobedience." This latter consists, in the main, of refusing to pay taxes. Also, they intimate that they will find it

difficult to control the bomb-throwing and sniping of the terrorist members of their race.

Glass, Stones, Shieks And Boy Scouts

Such was the situation when your breathless correspondent arrived at the battle front. But much to my secret disappointment, I didn't see even a good dog fight.

On the rocky road from Tel-Aviv to Jerusalem glass sprinkled on the road cut up a tire on our bus. An armed guard rode with us on the return trip, during which the bus was pelted with rocks twice. In Jerusalem I saw British soldiers everywhere with rifles and steel helmets. A couple of times when I was poking a nose into Arab quarters, sentries halted me and frisked my pockets for guns.

During a motorcycle trip out into the agricultural districts of Ramat Gan, Pethoch Tikva, Ras-el-Ain, and Brei-Brak I saw embattled Jewish

farmers standing guard over their crops with rifles and double-barreled shot guns. Once in a motor car two gleeful Arab boys shied stones at us. But that was all.

Arabs have strewn the roads with glass and nails as much to stop vehicles of their kinsmen as to annoy the Jews. You see, not all Arabs feel so strongly nationalistic that they'll starve for the cause; and so many of them try to run the gauntlet into town with produce.

Rock throwing has chiefly been in the hands of all people of Boy Scouts. We heard that some of the stone casters who wore Boy Scout uniforms needed a shave. (Recall the "Indians" of the Boston Tea Party?) But it is true that Arab troops of Boy Scouts have been incited to acts of violence by agitators.

The Palestinian landscape is cluttered up with rocks, even more than some of our New England sections, and the lads are quite handy with the stones which lie around so conveniently.

(Continued on Page 6, Column 1)

ANACONDA COPPER REFRIGERATOR TUBES



Coils are wrapped in moisture-resistant paper which protects the finish of the tubes.

Cutaway view of inside of tube. Note the bright inside surface.

Specially deoxidized... thoroughly dehydrated, unusually soft

There are three outstanding reasons why Anaconda Copper Refrigerator Tubes enable you to do a first-class installation job quickly, easily... and with the best results for your customers.

1—Deoxidized. Anaconda Copper Refrigerator Tubes are 99.9% pure copper, specially deoxidized to increase their corrosion-resistance.

2—Dehydrated. These high quality tubes are thoroughly dehydrated. They are manufactured according to A. S. T. M. specifications by methods which assure unusually bright, clean inside surfaces.

3—Soft. Then, too, Anaconda Copper Refrigerator Tubes are unusually soft. They may be easily bent and will flare without cracking.

The leading refrigerator manufacturers' specifications for tubes to be used in installation work are met by Anaconda Copper Refrigerator Tubes. When you install them, you give the purchaser full value for his money. The result is increased good-will for yourself and for your business.

Anaconda Copper Refrigerator Tubes are carried in stock by leading distributors of refrigerator parts.



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THE AMERICAN BRASS COMPANY • General Offices: WATERBURY, CONNECTICUT

Around the World

With George F. Taubeneck

(Continued from Page 5, Column 5)

That part of the riots—the stoning—is fairly easy to understand. What boy wouldn't delight in a newfound freedom to throw rocks and smash glass without a penalty?

Also understandable are the Bedouin raids, although at first they did seem most illogical. In these cases the fighting has been between two groups which had nothing to do with the original quarrel at all: the nomadic Bedouins of the desert, and the poor Yemenites.

The latter are a Jewish tribe which have lived in these parts for centuries, and who are just as primitive as the Arabs. They have had little part in the Zionist movement, and are fully as bewildered by its sudden flowering as are the worshippers of Allah, the one god, and his prophet, Mohammed.

Nor have the Bedouins anything to complain of—their pastoral life remaining undisturbed by the influx of Jews from abroad, few of whom seem to be inclined to be sheepherders.

But the Bedouins are naturally "bad ones," and love to fight. When Mohammedan agitators stirred them up about Zionism, they swooped down from their desert tents and attacked the only Jews they knew—the native Yemenites. Which, after all, was rather silly of the Bedouins.

Religion, ignorance, and natural belligerence thus may be blamed for the raids which caused the most damage and created the refugee problems.

British in the Middle

"In the middle" of this unfortunate situation are the British. Arabs are incensed because England allowed—and even encouraged—the Jews to come into Palestine in such numbers. Jews are angry because the situation exists.

During the World War, it seems, Great Britain made two conflicting promises: a National Home for Jews in Palestine, and an independent Arab state in Palestine and Syria. Lord BALFOUR made the first promise, and the famed T. E. LAWRENCE the second. Thus both sides feel that they are in the right.

Everywhere in Tel-Aviv we heard indignance over the failure of King Edward, or somebody, to ship out a few regiments and annihilate the Arabs. "A firm hand," the Jews feel, would quell the disturbance. (As a matter of fact British troops and small "tanks" were being moved over to Palestine from Egypt at the time of our departure.)

And while they're on the subject, taxes are too high. No, they don't pay any income tax. No, there's no sales tax. But they do pay an exorbitant gasoline tax. And what do they get for it? They ask you.

Three Sides

I hope and trust that my good Jewish friends in Tel-Aviv and Jerusalem won't take offense at my attempt to examine all three sides of the question. Let them do, and begin writing nasty letters to Mr. Cockrell before they get further along in this story about the rebirth of Palestine, let me make my position clear:

The writer is entirely sympathetic

with the Jews, and highly enthusiastic about the Zion movement. In the creation of Tel-Aviv, in the astoundingly successful efforts to reclaim and modernize a backwater of civilization, in the spirit of self-sacrifice and mutual assistance which pervades this movement, the Jews merit the applause of the entire world.

While I don't approve of Arab mischief, I can understand some of the reasons for it. The Arabs are naturally wondering what right one foreign race, the English, had to give their land to another race, the Jews. The situation is much the same as that between the Abyssinians and the Italians. While the Jews have been taking possession by "peaceful penetration" rather than behind guns, the result is practically the same in the end.

As a boy in the prairies of Illinois I can recall the resentment of the indigenous farmers against the University-trained young men who bought up farms and introduced tractors and soya beans. One can't approve such resentment, but it must be accepted as inevitable. Nor can one blame the British for an essential fact of human nature.

It should be noted that the coming of the Jews has brought unprecedented prosperity to the Arabs of Palestine. The very men who are leading anti-Jewish agitation profited immensely by the sale of land at many times its previous value to Jewish buyers.

The vast accretion of population has sent food and produce prices soaring, and those Arabs who still own their farms are profiting thereby. Jewish employers, as has been pointed out, boosted the wages for Arab labor.

Arabs have shared in the general prosperity which has come to the land. Jews have treated the Arabs far better than our American forefathers handled the redskins.

Too, the Arabs are chiefly hurting themselves by the general strike. As they step out, Jews step in. Jewish shopkeepers are taking over the trade of Arab merchants. Arab laborers are simply starving themselves for what seems to be a lost cause.

Barring a general Arab-Mohammedan uprising in the Near East (which is not beyond the bounds of possibility), the Jews are in Palestine to stay.

Internal Dissension

As mentioned before, the Arabs present far from a united front in their campaign to "save Palestine for Arabia." Not only are truck gardeners attempting to bootleg produce into Jaffa and Jerusalem and Haifa—where the general strike is being felt most (Tel-Aviv, being 99 44/100% Jewish, is affected only remotely), but a few merchants are doing a *sub rosa* business.

Rather, it is a *sub porta* business, and most amusing it is. When an Arab shopkeeper closes up, he lets down a roller wooden shutter in front of his door. A number of times I witnessed an Arab knock at one of these shutters and exchange hurried Arabic sentences with someone inside, after which the shutter would roll up about a foot above the ground. From inside the desired merchandise would be shoved underneath the shutter with one hand, and money would be accepted with the free

The Arabs—Co-Claimants to the 'Holy Land'



1. Arabs, outnumbering the Jews about two to one, are on strike against what they consider an invasion of their native land by usurpers. 2. They present no united front, however; here is a "strike-breaking" hawkker at work in Tel-Aviv's railway station. 3. George Taubeneck gets a light from an Arab smoker. His luggage is in background.

hand, which also appeared. Then the shutter would be lowered as before.

Sidewalk food hawkkers appeared, too, of the variety which always throngs up whenever a railway train stops at a station anywhere in the East.

More than one Arab tribe has, in the person of its chief or shiek, disclaimed any connection with the strike or the violence, and declared its intention to live in peace and complete harmony with the Jews.

British officials are counting on this internal dissension, plus its very real economic hardship on the Arabs, to break the back of the organized opposition to Zionism.

It might be suggested by some that the British are playing one side against the other, following the old principle (said to have been employed first by the Turks in the halcyon days of the Ottoman Empire) of "divide and rule."

But that seems as fantastic to me as do the stories about financial assistance coming to the Arabs from Italy and Germany (neither of whom could afford it, even if they were foolish enough to sanction it).

Outside assistance may be coming from sympathetic Arabs and Mohammedans in other lands (this possibility has been overlooked by most observers), but this writer, for one, could find no evidence of help for the unruly Arabs from nations anxious to break up the British Empire.

Bassinets & Safety Pins

At present the Arabs outnumber the Jews almost two to one in Palestine, having a population of about 750,000. There are now some 400,000 Jews present, and from 1,000 to 2,000 are said to be coming in every week. The recent difficulties have slowed this immigration a bit.

Each year the Jewish Agency submits to the British Mandate Administration an estimate of the number of immigrants the country can absorb. Whereupon the British issue permits for considerably less (sometimes half the estimate) to enter.

To gain the maximum number of entrants for each permit, Zionists abroad attempt to send men with families. If a single man applies for a permit, the Zionists see to it that he takes a bride along (sometimes, we hear, she is a wife in name only) before he embarks.

Any immigrant family with a capital of \$5,000 can enter without a permit. Professional men (doctors, lawyers, dentists, architects) need no permit if they have \$2,500; and mechanics are allowed if they possess \$1,250.

But even if the Arabs should surprise everybody and succeed in their efforts to prohibit further Jewish immigration, we'll lay heavy odds that the days of their numerical dominance are numbered.

If you'll note the photographs I took in Tel-Aviv (many of which will appear in the next issue), you'll understand why this statement was made. It was almost impossible to photograph a Tel-Aviv cityscape without getting from one to a dozen baby carriages in the picture.

That was my first, last, and most dominant impression of Palestine—the baby carriages. I've never seen anything like it, anywhere in the world.

Not only are multitudes of baby carriages continually in view, but the number of obviously pregnant women on the streets would scandalize an American community. It's no place for a Lane Bryant shop, because here expectant mothers are proud of their appearance—it's a sign of their patriotism, loyalty, and piety.

The movement to increase the Jewish population in Palestine is encouraged by rabbis, business men, the unique social situation, and natural inclination.

Possibly the last two reasons need a bit of elucidation. Hear me out: Most of the young mothers you see trundling curly-haired infants along the street are young (and healthy!)—from 16 to 26 years of age, one would judge.

In the countries from which they emigrated to the Promised Land, the

age of marriage and childbirth was postponed for economic and social reasons. But not here.

Even if they are living on bread and butter (and I saw a number of young family trios eating meals on the beach, or even on the sidewalk, of just that fare) they are encouraged to become parents.

In Palestine a girl with a college education is proud to become the wife of a truck driver or day laborer, and to bear him children. There are no social distinctions at all. I mean that.

Socially, the Jews have fostered the sort of brotherhood in Palestine that the Soviets have tried to establish economically in Russia. But whereas the U.S.S.R. has been laboring more or less unsuccessfully toward an approximation of this ideal for two decades through communism, the Jews have done it easily in four years through benevolent capitalism.

As for the last-mentioned explanation of the high birth rate (natural inclination), one has only to look at the healthy, exuberant species of young womanhood which has been imported. Tel-Aviv probably has the world's greatest concentration of mammalian capacity. From now on, the girls we see will likely seem underdeveloped.

Tel-Aviv couples do not walk arm-in-arm or hand-in-hand; they walk with arms around each other. One almost never sees a girl alone; she has either a baby or a man (rarely another girl) with her. Bathing suits for both sexes are scantier even than in America.

As a matter of fact, it was probably a good thing for the writer that he had to leave Palestine on schedule, much as he would have liked to remain and obtain a more thorough and comprehensive story about this exciting nation-building enterprise.

Being fairly young, single, and traveling alone, he might have cracked under the strain of living amongst so much militant young love.

A New Race

So happy the young people seem! Especially for the middle Europeans, this is a country of miraculous freedom and opportunity.

Here in the benign sunshine a new race is being born. Perhaps we should say "fused," for this new race will emerge in the Palestinian melting pot from a mixture of Germans, Russians, Americans, French, English, Canadians, Poles, Czechs, and what-not.

But the new race, the generation now rolling majestically over the streets and sidewalks of Tel-Aviv in the daily Bassinet Brigade or Perambulator Promenade, will be none of these. It will be something quite individual. Here's why:

Tel-Aviv has an extraordinarily fine beach. In fact, nearly all the Palestinian coastline I traversed (by boat, automobile, and train) seemed to have beach possibilities. Almost all the year 'round the seacoast sands are thronged by swimmers, ball tossers, and sunbathers.

Babies not only receive the most expert care and attention (under the direction of eminent doctors from Germany; and the aegis of the municipality, Tel-Aviv maternity centers,

are unsurpassed), but are growing up under daily natural violet ray treatments.

Like the inhabitants of California and New South Wales, the Palestinian Jews will be, and are, an outdoor-loving, sports-minded people.

This new Jewish race, taller, stronger, with no trace of an inferiority complex, mighty in numbers and spirit, will not be one to cringe before persecution, as their benighted ancestors in so many lands piteously have been forced to do through the centuries.

At present, however, the instinct of protection and selfpreservation against attack is still to be seen. Locked doors are a fetish. Moreover the key turns over twice in Tel-Aviv locks. Walls are thick.

Public buildings, theaters, cinemas, resemble fortresses in their construction. Within them a besieged populace could find refuge in case of dire necessity.

One hears of secret societies which import arms and munitions, and store them in hidden arsenals. If this be true, however, they did not make themselves known during the recent troubles with the Arabs.

Nor do we expect any such secret societies to mobilize during the present crisis. If the Arabs carry out their plans to evade taxes, we have a hunch that the British soldiers might even become so aggressive as to satisfy some of the more indignant Jews.

Beards and the Sabbath

There are lots of beards in Palestine. Full, luxurious crops of whiskers they are, some with sideburns grown into curls which hang down the side of the face, in accordance with the Old Testament injunction: "Thou shalt not mar the corners of thy beard."

But to business men, the strict observance of the Sabbath and the use of the Hebrew (not Yiddish) language are much more important manifestations of the role religion plays in this national drama (which, with D. W. Griffith's permission, we should like to entitle, "The Birth of a Nation").

The Hebrew Sabbath, you know, is not Sunday, but Saturday. Sunday the business houses of Tel-Aviv, Haifa, Jerusalem, and Jaffa are running full blast. (American executives are sometimes surprised when they note that a letter from a Palestinian firm has been dated on a Sunday.)

Saturdays, however, are sacred. Stores and factories are closed tighter than an American bank on Washington's birthday.

In the morning the populace of the seacoast cities adjourns to the beaches, hiding the sands and churning up the waters. At noontide they have their dinner (heaviest meal is eaten at midday here; a light supper comes in the evening). In the afternoon they go for a walk, jamming the streets. At night they visit friends.

Buses coming into Tel-Aviv must arrive before dark Friday nights, lest they break the Sabbath eve. No musical instruments may be played on the Sabbath, although there seems to be no effective ban on phonographs

(Continued on Page 7, Column 1)

On the Beach at Tel-Aviv



Fine sand, soft breezes, warm water, gentle breakers, and voluptuous figures—that's the beach at Tel-Aviv, George Taubeneck writes. "It's Miami Beach or Atlantic City all over except that eyes are brighter, faces cleaner, figures better, and prices lower."

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SEAL and SAVE

Replace worn refrigerator door gaskets. Make money for yourself. Save money for your customers.

From the complete but simplified Miller line of 20 gasket types, you can service 80% of all refrigerators made to date.

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IMMEDIATE DELIVERY

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"Engineers in Rubber"

Hebrew Language Hinders Palestine Visitor, Editor Says

(Continued from Page 6, Column 5) or radios.

The Hebrew language must be learned by all immigrants. And that isn't a bad idea, for it gives a common language to a nation which otherwise would have (and does, just now) a Babel of tongues.

However, the use of the Hebrew alphabet doesn't seem so practical. All the signs in Tel-Aviv are in Hebrew characters, as well as all the printed matter. That makes it tough on visitors. Also, the use of Hebrew characters will undoubtedly lead to difficulties in the communication and intercourse with other nations.

Classical Hebrew has had to be modified (hundreds of new words have been added to describe things—like the automobile—and situations which did not exist in Biblical times) for present-day usage in Palestine.

Learned scholars at the Hebrew University (which we visited) on Mount Scopus, overlooking Jerusalem, are now engaged in the monumental task of compiling a Hebrew dictionary. While they're at this vast work of adding new words and tracing the roots of old ones, could they not translate the beautiful Hebrew tongue into writing which would employ the alphabet now in use in practically all civilized countries of the world?

Killed by Kindness

The reception in Palestine was much like those of Auckland, Sydney, and Bombay—swell from every standpoint, but rough on the constitution.

Not that anybody even offered me

a drink in Palestine. Outside of a wee drop of wine at luncheon with the SAMUEL SCHIMMEL in their home (he is Kelvinator distributor) I lived the life of a teetotaler.

But every morning before seven MAX GREENBURG, manager of the British Thompson Houston (G-E) branch, called up to help plan the day, and from that moment until 2 or 3 in the morning I was not alone.

There were lots of things to see—offices, showrooms, installations, new buildings, the Levant Fair, orange groves, dairy farms, cooperative enterprises—but chiefly people, talking. And how they talked. You know how excited and voluble a Jew can get when he's really interested in something? Well, imagine a whole country (including every refrigerator distributor and dealer) full of them, and each one excited over the most thrilling experience in Jewish racial history.

Don't get the idea that I'm kicking. It was thrilling, too; and as a result of all the high-powered listening (reporting in Palestine is no trick at all—you can't stop 'em from talking—all you need is an encyclopedic memory) I came out with almost as much material on Palestine as I gathered on Australia.

Max Greenburg

Five years ago MAX GREENBURG brought the first electric refrigerator to Palestine. He showed it at the Levant Fair, and people thought it was some sort of newfangled cooker! To show you what's happened since, take a look at the figures on exports of electric refrigerators from the United States of America to Palestine for the years 1933, 1934, and 1935.

Household refrigerators	
1933	255
1934	1,019
1935	3,196

Happy Expatriate



Samuel Schimmel, former Kelvinator Philadelphia distributor, now distributor for Palestine, Cyprus, and Syria. With him is Mrs. Schimmel.

Well, Mr. Greenberg really started all that. He caught the vision while he was General Electric distributor in Atlantic City, sold G-E higher-ups on the idea, came across, and now is the head of a thriving business. His B-T-H branch sells everything that G-E makes.

Mr. Greenburg believes in building soundly, building for the future. He believes fully as much in the destiny of Tel-Aviv and Palestine.

It was almost difficult to get him onto the subject of refrigeration; he wanted to talk so much about Tel-Aviv. And through him I met a fine representation of lawyers, doctors, merchants, engineers, architects, artists, and journalists (including novelist MAURICE SAMUELS), all of whom

contributed to a final general knowledge and understanding of the situation.

Creation of new industries and the building of new communities has changed Palestine from a country totally unfamiliar with electric appliances to a good market for all kinds of electrical equipment, Mr. Greenburg believes.

"The country is too poor, and the merchandise too dear" was the attitude we met four years ago," said Mr. Greenburg.

"That same year, however, we opened an office with a staff of one, and not only did we find a market for appliances, but within a year almost every well-known electrical manufacturer in the world was represented here and competing for business."

Although 1932 sales were modest, in 1933 the business increased two and one-half times, and in 1934 was double that amount.

"The creation of industry," Mr. Greenburg pointed out, "means new outlets for every form of motor and switchgear. The building of new communities likewise means that there will be demands for similar equipment, for water works, electric refrigerators, talkies, and in fact all sorts of electrical equipment."

"Likewise," he explained, "the success of agricultural development and certainly of citrus growing requires extensive irrigation; and that is possible only with deep well pumping, requiring motors."

Mr. Greenburg said that Haifa, situated on the extreme northern coast and consisting of a port and a residential area, has seen the greatest development of small industrial plants. The government has spent approximately 3,000,000 pounds on the improvement of the port, building a breakwater and filling in ground so that it is now the main port for the disembarking of passengers. Due to its strategic position it is being used by the British government as a naval base. The terminus there of the Iraq oil pipe line should lead to the erection of a large refinery, Mr. Greenburg believes.

Tel-Aviv, with a population of approximately 125,000 and a yearly entry of 100,000 persons, is rapidly becoming an important trade center.

Jaffa, which is still the port handling the largest volume of the shipping, has a population of 50,000 Arabs and 10,000 Jews, which together with the inhabitants of the surrounding district raises the total community figure to 250,000—making this part of the country strategically important in commerce.

Jerusalem, the seat of the government, with a population of approximately 90,000, is third in importance from a commercial point of view.

The development of small industries contributes to the scope of activities necessary for the absorption of the vast immigration. The type and number, it seems, will greatly depend on the ingenuity of the settlers. To supply local needs every type of plant gradually is being built, from electricity generating plants to cement mills, from water works to furniture and shoe factories.

"From whatever angle we approach the rapid development of this country, there is cause to feel from the point of view of business in general and electrical goods in particular that there are and will continue to be business opportunities proportional to the increase in population," is Mr. Greenburg's optimistic prediction. British Thomson-Houston has gone ahead with that idea, and Mr. Greenburg now has a fine, modern establishment, with a staff of more than 30 persons.

Complications in gathering such a staff together, according to Mr. Greenburg, include getting persons that not only know how to sell and install such appliances as motors, switchgear, talkies, radio sets, amplifiers, refrigerators, and cookers, but also who know the three official languages of the government, English, Hebrew, and Arabic, in addition to German, which is used as much as the official languages. French is indispensable in Syria, where the company now does business.

Main offices and showrooms of the Palestine branch of this company are in Tel-Aviv, and branch offices and showrooms in Haifa and Jerusalem. Separate workshop and warehouse and the permanent building at the Levant Fair complete the company's possessions.

S. Schimmel—Old Friend

Somehow it didn't dawn on me that the "S. SCHIMMEL" on my list of subscribers in Tel-Aviv would be my old friend, SAMUEL SCHIMMEL, who used to be Kelvinator distributor in Philadelphia.

But there he was, as urbane and gentle, and smilingly friendly as in the days I used to call on him in Philadelphia.

He and Mrs. Schimmel treated me like an old friend of the family, rather

than as a visiting fireman; and don't think I didn't appreciate it.

During my interview with Mr. Schimmel, who is now Kelvinator distributor for Palestine, Cyprus, and Syria, (and has been for the last three years), Mrs. Schimmel served us tea, and went out and got samples of Palestinian candy and ice cream.

Saturday morning (the Sabbath) the three of us went for a long walk together, after which we went to their delightful home for a genuine Jewish Sabbath dinner.

Their hospitality reached clear over to Jerusalem, where their daughter and son-in-law live. These splendid young people took charge of my own Jerusalem pilgrimage, and were a joy to know as well as a real help in seeing the Holy City.

'Any Minute Now'

Mr. Hoffman, who operates the Kelvinator branch in Jerusalem (there's another in Haifa), Mr. Schimmel himself, his son LEONARD, service and installation manager, MORITZ INTRATER, sales manager, MAX PETRUSCHKA, sales engineer, and the eight salesmen attached to the headquarters office, all were being kept busy saying:

"We expect them in any minute now. Please be patient with us, and we'll have your Kelvinator installed in a jiffy."

Occasion for this apologetic attitude was the fact that a large shipment of Kelvinator equipment was tied up in the harbor at Jaffa because of the striking Arabs.

Starting with a bang, Mr. Schimmel's organization had sold a flock of Kelvinators. But because of the strike they couldn't get the machines to deliver. And the customers, well sold, felt they couldn't live another minute without their Kelvinators.

Parts were tied up in the same shipment, thereby giving son Leonard a prolonged headache.

Salesmanager LEO BLOCH of the Haifa branch, and Salesmanager ERNEST BAER, of the Jerusalem branch, were in hot water for the same reason.

Making Business

Up until recent months, Mr. Schimmel's business has been 75% commercial sales. There have been no multiple system installations in apartment houses. Department stores haven't become especially interested in refrigerators as yet. Mr. Schimmel and his cohorts have had to make business.

First year they sold a hundred ice cream cabinets, a number of Mills ice cream freezers, and completely re-equipped the three leading ice cream factories. In fact, ice cream equipment accounted for 33% of the business that first year.

To do this, Mr. Schimmel introduced and popularized American style ice cream. Formerly only the old German style (slow frozen, grainy, and watery) of ice cream had been produced and sold in Palestine. The

(Concluded on Page 10, Column 5)

"Here's How"

THE PERFECT HOST PROVIDES ICE CUBES INSTANTLY!



"Here's looking at you, drink a toast, I'll help you be the perfect host; For as you flip my rubber tray, Your guests have cubes The Modern Way."

★ Today, the perfect host wants to get ice cubes instantly... at the refrigerator... from Flexible Rubber Trays or Grids.

The overwhelming evidence of public approval for this modern method of getting ice cubes is shown by a recent survey of refrigerator purchasers. This survey shows 99% expressing a definite preference for this ice cube convenience.

Inland full-page advertisements in leading magazines reflect the voice of refrigerator buyers who expect to get ice cubes full-sized, cold, and dry... with the flip of a finger—one at a time or a whole trayful... from Flexible Rubber Trays or Grids.

Give your salesmen the advantage of opening a refrigerator door which discloses Flexible Rubber Trays or Grids in every ice compartment. Insist that the refrigerator you sell comes so equipped from the factory.

THE INLAND MANUFACTURING COMPANY • DAYTON • OHIO

A TRULY MODERN REFRIGERATOR SHOULD HAVE A FLEXIBLE RUBBER TRAY OR GRID IN EVERY ICE COMPARTMENT



McCord Refrigeration and Air Conditioning PRODUCTS

CONDENSERS
COMMERCIAL EVAPORATORS
DOMESTIC EVAPORATORS
COMFORT COOLERS
MARKET COOLERS
AIR CONDITIONING SURFACE
UNIT HEATERS
BLAST HEATING SURFACE
CATALOGS ON REQUEST

McCord Radiator & Mfg. Co. DETROIT, MICH.

ELECTRIC REFRIGERATION NEWS

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AUGUST 19, 1936

Weapons Against Price Cutting

RETAILERS OF ELECTRIC refrigerators in Cleveland, as reported in this issue of ELECTRIC REFRIGERATION NEWS (also see the July 29 issue) are attempting to take advantage of the recently-enacted Ohio Fair Trade Act to maintain resale prices. The Act provides that a minimum resale price is established on any item bearing a standard brand or trademark, if that minimum price is included as a part of a contract between a distributor or manufacturer and a retail outlet. ONE SUCH CONTRACT is binding on all members of the trade.

Electric refrigerator dealers in other sections of the country (most of whom seem to view price-cutting as a major problem) will no doubt be curious to see how the new law is administered in the Buckeye state. It will be remarkable indeed if the law succeeds in keeping all retailers hewing to the line in the matter of list prices. Also the odds are probably against the law itself being upheld in the courts, if brought to a legal test.

There is a chance, of course, that administration of the law may work out as the band of Cleveland retailers hope it will. If it may be assumed that all but a few retailers are really opposed to price-cutting, even though they may have indulged in the practice, then a legislative act may be just the force needed to keep dealers from joining with a bargain hunter to wreck established price schedules.

Recent interviews with household electric refrigerator dealers by staff members of the NEWS indicate that price-cutting has been the dealers' major problem this year. Leading Detroit retailers recently interviewed have revealed a variety of ideas and methods for fighting the price-cutting evil. One solution is in the nature of a reprisal against manufacturers and distributors who fail to "protect" established prices.

Many retailers are imbued with the idea that manufacturers and distributors, if they wanted to, could exercise sufficient control over their retail organizations to curb price-cutting. Therefore, these dealers have adopted the "switching" method, which a number of them claim is effective. When a prospect mentions that he can get a better price on a certain make of refrigerator, the dealer devotes his efforts to interesting the prospect in some other make. The "multiple" dealer

naturally turns to one which is better protected (through stricter selection and supervision of outlets by the manufacturer).

Another method is the adoption of a pose simulating cool indifference to chiseling customers—the "go ahead and shop around, but you'll be back" attitude. Of course the effectiveness of this method is dependent upon the skill of its execution. It's up to the salesman to convince the prospect that the "bargain" which is offered isn't really a bargain at all.

A third method is built around the idea of a local cooperative agreement. Detroit dealers appear to be more or less cynical about the possibilities of constructive action resulting from cooperative efforts, such as regulations for price maintenance drawn up by a local dealer association. The fact does remain, however, that such have proven successful in some localities, where association membership is close to 100%, and the agreement has been effectively "policed."

On page 1 of this issue is the story of the novel method used by dealers and distributors in San Diego to enforce such an agreement. A "shopping service" is used to check up on the status of retail prices; and, as "shopping reports" are read at weekly meetings of the cooperating retailers, this method has largely eliminated price cutting, according to reports from this progressive California city.

Even though a local association may not be functioning, strong-minded dealers need not surrender to the price cutter. Too many dealers, it would appear, place insufficient value on their own reputation for service and quality as an antidote to bargain-hunting. As the NEWS pointed out in an editorial in the July 15 issue:

"When the public buys any merchandise which calls for an assurance of quality, or which requires service of any kind, it is willing to pay a fair price for those added ingredients.

"What an opportunity that offers to the dealer whose word is good and whose reputation for service is known to the community."

Nobody should decry cooperative effort as a means toward the common good. On the other hand, the present-day tendency to solve all problems by "passing a law" has its drawbacks. The strong dealer can usually provide his own answer to price cutting by establishing his own reputation for fair dealing so thoroughly that members of his community will instinctively accept his prices as being an honest measure of value. After all, quality and service, maintained through the years, are the best weapons against any form of competition.

Letters

Paging Mr. Hamilton

G. A. Fitzpatrick
Heating—Steam, Vapor, Water
Mechanical Refrigeration
Boiler Repairs
1444 C Ave. N. E., Cedar Rapids, Iowa
Aug. 13, 1936.

Editor:
Enclosed please find money order for \$3.00 to pay for a MASTER SERVICE MANUAL.
I have read your editorial of July 29 concerning air conditioning as advertised by the American Radiator Co.

I wonder if Mr. Hamilton can tell us why such notable theaters as the St. Louis American and the Orpheum had to close their doors in the hot weather when both of these houses had plenty of ventilation capacity (fans). Such was the case several years ago. However, I believe these houses have installed mechanical

cooling since I was there—at least there was talk about doing so.

I wonder also if Mr. Hamilton can explain why a moving picture house or theater will spend thousands of dollars to make these places the acme of comfort, which would be impossible without refrigeration.

G. A. FITZPATRICK.

The Specifications Book -

Penn Electric Switch Co.
Des Moines, Iowa

Aug. 6, 1936

Gentlemen:

After much checking of the printing job done on the insert for your MASTER SERVICE MANUAL and the same insert to be used in your REFRIGERATION SPECIFICATIONS book, we have come to the conclusion that the inserts which we have furnished you will be satisfactory even though an occasional one may be trimmed too closely on the bottom.

You people have done a nice job with your MASTER SERVICE MANUAL and the circulation you are getting on it, and I sincerely hope that the Specifications book will meet with the same demand.

Answer: Thanks for your comments on the MANUAL. We are getting a lot of complaints because of the delay in completing the Specifications book, but we are sure that subscribers will be delighted with the book when it finally arrives. The book will contain about 400 pages of data and we believe that manufacturing executives, distributors, dealers, and salesmen (as well as service men) will want the Specifications book. It is going to be a "knockout."

- and the Refrigeration Engineers Manual

William Lustig
351 State Ave.
Owatonna, Minn.

Editor:

I am calling your attention to the fact about the REFRIGERATION ENGINEERS MANUAL, which I ordered at the same time when I ordered the MASTER SERVICE MANUAL and the ELECTRIC REFRIGERATION NEWS. I have received the NEWS and MASTER SERVICE MANUAL, but not the REFRIGERATION ENGINEERS MANUAL.

I am well pleased with the NEWS and the MASTER SERVICE MANUAL and would like to know just why I did not yet receive the REFRIGERATION ENGINEERS MANUAL which I believe I will find very interesting and a great help to me.

I would appreciate your putting me on your catalog mailing list.

Answer: The final chapter of the REFRIGERATION ENGINEERS MANUAL was published in the June 24 issue of ELECTRIC REFRIGERATION NEWS. Final corrections have been made and the book will go to press soon. The job has been held up to some extent because of delays in completing the Specifications book which was scheduled for production ahead of the ENGINEERS MANUAL.

Carbondale Doesn't Make Self-Contained Coolers

Carbondale Machine Corporation
Harrison, New Jersey

Editor:

Under date of July 16, we sent you corrected listings on our air conditioning units which were listed in the July 29 issue of ELECTRIC REFRIGERATION NEWS. This paper has listed our Model SRC-1, 2, and 3 as a self-contained unit, which we assume to include both the air cooling unit and refrigerating unit mounted in a single cabinet.

The specification sheets we sent you on these units were marked in accordance with your printed instructions to indicate a suspended type air conditioner for mounting on the wall or ceiling for remote installation of compressor. In other words, these units are of the suspended type with propeller type fan and requiring separate source of refrigeration.

Since your publication was issued, we have had a number of requests for drawings on our self-contained air conditioning units, and since we do not have this particular type, it places us in rather an embarrassing position. If these units are listed in any future editions, we would thank you to see that they are listed under the proper heading.

T. L. WARREN,
Air Conditioning Division.

An Argentine Engineer Seeks Information

Alberto Antolin Solache
Avenida Parra 587
Buenos Aires—Rep. Argentina
Enclosed you will find check No. 55453 to your order for \$5.00—U. S. funds drawn on the first Boston International Corp., New York. This amount covers a subscription for two years to your publication, ELECTRIC REFRIGERATION NEWS, beginning if pos-

sible with the first weekly number of the current year.

I am at present engaged in a technical capacity with a manufacturer of general refrigeration equipment here and I would be very grateful if you would pass my address on to the manufacturers of accessories who advertise in said periodical, with the idea of having their publications, technical leaflets or bulletins, catalogs, etc., up to date.

Also I would thank you to send me by return mail the address of the American Association of Refrigeration Engineers or a similar organization where one can obtain details on the works of standardization and standards published to date.

ALBERTO ANTOLIN SOLACHE.

Finds Survey of Market In India Valuable

Brunner Mfg. Co.
Rm. 106 Union Station Bldg.
Utica, N. Y.

Aug. 3, 1936.

Enclosed you will find 60 cents in stamps for which we would ask you to send us three copies each of the July 15th and July 22nd issues of ELECTRIC REFRIGERATION NEWS. These are the two issues that contained Mr. Taubeneck's thoroughly interesting story on India and the market there for refrigeration equipment.

I am planning to send copies of both issues to Walter Schleiter, Reg. Harding, and C. F. Briggs, respectively General Manager, Sales Manager, and Manager of the Bombay office of Muller & Phipps (India) Ltd., our agents for India.

P. A. KARL,
Export Manager.

A 10-Year Reader Writes

1634 E. Duval St.
Philadelphia, Pa.

Aug. 15, 1936.

Gentlemen:

For the tenth consecutive year I enclose check for my personal subscription to the NEWS.

For travel on the modern world, and a devastating literary style, the Brown Derby (not pith helmet) surely must go, by oodles of margin, to your editor, Mr. George Taubeneck. Space nor time scarcely permit comment here on the numerous up-to-the-minute features and services your organization renders to the refrigeration industry.

Accept, please, my hearty appreciation.

EARL P. GOODISON.

Manufacturer's Agent

P. L. Tolerton
Sales Engineer
844 Rush St., Chicago
Aug. 13, 1936.

Mr. Cockrell:

I am establishing myself in Chicago as a manufacturer's agent, and desire a connection with one or two manufacturers whom I can represent in this territory. Mr. George Bright wrote to you on June 19, giving you some idea of my background.

Thinking that your contact with the field of refrigeration might bring you in touch with manufacturers who desire sales representation, I was anxious to meet you and ask that you put me in touch with any manufacturers who would consider capable representation in the Chicago area.

I would appreciate it very much if you will bear this in mind. At some later date, when I get to Detroit, I hope to meet you personally.

P. L. TOLERTON.

Analysis of 1935 Sales By Cubic Content

H. W. Kastor & Sons Advertising Co.
London Guarantee Building, Chicago
Aug. 11, 1936.

Editor:

We are anxious to obtain as quickly as possible an analysis of last year's total American refrigerator sales, divided according to cubic content sizes.

We have a copy of your 1935 REFRIGERATION AND AIR CONDITIONING MARKET DATA BOOK which shows figures for 1934.

We certainly would appreciate any effort on your part to supply us with this information.

W. A. WILLIAMS.

Answer: A final analysis of refrigerators sold (by size) by 14 manufacturers who are members of the Refrigeration Division of Nema for the year of 1935 was published on page 18 of the March 25 issue of ELECTRIC REFRIGERATION NEWS.

The Foreign Exchange Problem in Italy

Prof. E. Micheli
17, Via Agnello, Milan, Italy
F. M. Cockrell:

Referring to Mr. Alberto Fantini's business—he has asked me to tell you that in order to avoid the terrific complications and bureaucratic circumlocutions that one must go through now-a-days to obtain any

foreign currency at all, he has sent you today an international money order for 36 lire which should work out to be about \$3.

But there is just a chance that according to the exchange of the day, you may not receive \$3 exactly. You will excuse the difference and debit it to Mr. Fantini, so that he may be able to add it to his next remittance.

The "international money order" is a kind of safety valve for all this acrobatic foreign banking business, for one can send any currency in that way up to 50 Italian lire, and then it must be got in lire, hence the uncertainty of the exchange.

Anyhow Mr. Fantini hopes you will send him the MANUAL as soon as it is ready, as he is very keen on seeing and possessing it. He has also received a very kind letter from Mr. George F. Taubeneck, to which he will reply shortly. But Mr. Fantini has undergone an operation, and he is just beginning to get about again.

E. MICHELL.

To Study Refrigeration From the Ground Up

Woodlyne, N. J.
Aug. 10, 1936.

Editor:

I would like to have a list of textbooks on refrigeration sold by you.

Particularly some that would enable me to study refrigeration slowly from the ground up.

HOMER ANDERSON.

Answer: The MASTER SERVICE MANUAL by K. M. Newcum, which we publish, contains complete installation, operation, and service information on all fundamental present-day types of household electric refrigerators, and on 15 "orphan" makes of refrigerators. The MANUAL is well illustrated with photographs, drawings, and diagrams, and is written in simple and understandable terms, making an excellent reference book for use in meeting the specific day to day problems of the service man.

Introductory Chapters of the MANUAL instruct the readers in fundamentals of mechanical refrigerators.

We have just started to publish serially in the issues of ELECTRIC REFRIGERATION NEWS the "Commercial Service Manual," by K. M. Newcum. This series of articles began in the Aug. 5 issue and will continue throughout the year, to be published in book form early next year. This manual takes up in detail the problems of installation and service of commercial equipment.

He Would Have Liked to Have Been with George

Karl B. Davis
Electric Shop
Middletown, Ind.

Gentlemen:

I see that my subscription to your valuable paper has expired on the 3rd inst. and I expect that I had better pay up so you will find enclosed my check No. 3540 for \$5.00 which is to pay for my subscription and one copy of your MASTER SERVICE MANUAL.

I want to compliment you upon your paper as I well know that you have quite a task to gather up all of the material that it takes for each weekly issue. I enjoy reading Around the World by George. Some of the places that he has been in he is welcome for the honor but others I only wish that I could have been along.

KARL B. DAVIS.

We Have Lots of Data On the Export Market

2800 Ridge Road
Des Moines, Iowa
Aug. 10, 1936.

Editor:

Will you kindly send me what information you can on the sale of refrigerators to foreign countries.

MRS. CANDACE B. ALIX.

Answer: We are not quite sure as to just what information you desire.

If you mean reports on the number of refrigerators sold to particular foreign countries, monthly reports giving this information are published regularly in issues of ELECTRIC REFRIGERATION NEWS. Yearly export figures by countries from the years 1926 through 1934 were published in the 1935 REFRIGERATION AND AIR CONDITIONING MARKET DATA BOOK.

George F. Taubeneck, editor of ELECTRIC REFRIGERATION NEWS recently returned from an around-the-world trip on which he surveyed the refrigeration market conditions in all but a few major foreign markets. He has reported his findings in the weekly issues of ELECTRIC REFRIGERATION NEWS, starting with the Jan. 8, 1936, issue, and the series of articles in all probability will continue throughout the balance of the year.

If you wish to start a subscription beginning with the first issue in which the "Around the World" series started, we will be glad to fill your order, although there are three or four issues of the past seven months which we would be unable to furnish.

Air Conditioning

**Where 112 Air Conditioning Systems
Were Installed in Chicago in July;
Average Size Is 5 3-4 Tons**

Name and Address	Class of Business	Tons	Hp.
General Offices			
American Airways, Inc., 5034 W. 63rd St.	General Office	5	6
American H & C Club, 30 N. Dearborn	General Office	3	3 1/4
Bd. of Trade Clearing Co., 141 W. Jackson	General Office	7 1/2	7 1/2
Brunswick Balke Callender, 623 S. Wabash	General Office	25	28
Chicago Screw Co., 1026 S. Homan Ave.	General Office	1 1/2	1 1/2
Coyne Electrical School, 1701 W. Congress	General Office	1 1/2	1 1/2
E. L. Essley Mach. Co., 825 Rees St.	General Office	1	1
Fruit Auction Sales, 1421 S. Solon St.	General Office	1 1/4	1 1/4
Material Service Corp., 33 N. La Salle St.	General Office	5	5
McCable, James, 7900 S. Ashland	General Office	10	11 1/2
O'Bryan Bros., Inc., 4220 Belmont Ave.	General Office	80	80
Phoell Mfg. Co., 5700 W. Roosevelt Rd.	General Office	3	3
Silver, Clausen, Hirsch, 208 S. La Salle St.	General Office	20	20
Sonnenschein, Berkson, Etc., 77 W. Washington	General Office	3	3
Steamfitters Protect. Assn., 408 S. Leavitt	General Office	5	5 3/4
United Autographic, 5000 S. California	General Office (16)		

Private Offices

Armour, Lester, 135 S. La Salle St.	Private Office	1 1/2	1 1/2
Babcock Rushton, 333 N. Michigan	Private Office	1	1
Bates, George A., 135 S. La Salle St.	Private Office (2)	1	1
Blum, P. S. & Co., 505 W. Chicago Ave.	Private Office	3 1/4	3 1/4
Blyth & Co., 135 S. La Salle St.	Private Office (2)	1 1/2	1 1/2
Budd, Britton L., 72 W. Adams St.	Private Office	1	1
Callner, M. H., 33 N. La Salle St.	Private Office (2)	1 1/2	1 1/2
A. G. DeClercq, 72 W. Adams St.	Private Office (2)	1	1
Daily Times, 211 W. Wacker Dr.	Private Office	1 1/2	1 1/2
Friedrich, H. A., 231 S. La Salle St.	Private Office	1	1
Ferguson, L. A., 72 W. Adams St.	Private Office	1 1/2	1 1/2
Green, Dwight, 231 S. La Salle St.	Private Office	1	1
Hartz, Homer, 2 S. Michigan	Private Office	1 1/2	1 1/2
Hecht, Julius, 72 W. Adams St.	Private Office	1	1
International Union, 332 S. La Salle St.	Private Office	1	1
Insull, S. Jr., 72 W. Adams St.	Private Office	1 1/2	1 1/2
Keeshin, Jack, 1453 Washburne	Private Office	1 1/2	1 1/2
Kidder Kruger & Co., 216 W. Adams	Private Office	1 1/2	1 1/2
Lipp, J. J., 323 W. Polk St.	Private Office	1 1/2	1 1/2
McKinsey, Jas. O., 222 N. Bank Dr.	Private Office (2)	1	1
Mintern, B. F., 231 S. La Salle St.	Private Office	1	1
Morgan, Clarence & Co., 919 N. Michigan	Private Office	1 1/2	1 1/2
Moses, Kennedy, Stein, 231 S. La Salle St.	Private Office	1	1
Ormsby, Dr. O. S., 25 E. Washington	Private Office	1 1/2	1 1/2
Realty Mortgage Co., 3115 Logan Blvd.	Private Office (3)	3	3
Republican Nat'l Com., 80 E. Jackson Blvd.	Private Office	1	1
Sachs, Morris B., 6638 S. Halsted St.	Private Office	1	1
Schlyer, Weinfeld, Henne, 231 S. La Salle St.	Private Office	1 1/2	1 1/2
Sessions, E. O., 120 S. La Salle St.	Private Office	1	1
Sundberg Co., 615 W. 79th St.	Private Office (3)	1 1/2	1 1/2
Wetzig Mfg. Co., 2600 W. Fletcher	Private Office	1	1
Wilson & McIlvaine, 135 S. La Salle St.	Private Office	1 1/2	1 1/2
Winston, Strawn & Shaw, 38 S. Dearborn	Private Office	1 1/2	1 1/2
Wohlgmuth, John F., 157 W. Jackson	Private Office	1 1/2	1 1/2

Residences

Barker, Lewis, 10036 Longwood Dr.	Residence	1 1/2	1 1/2
Baur, A., 5490 South Shore Dr.	Residence	1	1
Cox, A. S., 850 Lake Shore Dr.	Residence	1 1/2	1 1/2
Cuneo, John, 3300 Lake Shore Dr.	Residence	1 1/2	1 1/2
Donn, Louis, 6330 South Shore Dr.	Residence	1 1/2	1 1/2
Farquhar, R. C., 6901 S. Oglesby Ave.	Residence	1 1/2	1 1/2
Flash, S. C., 5000 East End	Residence	1 1/2	1 1/2
Green, Harold, 5525 Hyde Park Blvd.	Residence	1	1
Grossman, Ed. K., 1642 Hyde Park Blvd.	Residence	1 1/2	1 1/2
Hansen, J., 5500 W. Thomas St.	Residence	1 1/2	1 1/2
Hoffman, Dr. S. J., 3800 Lake Shore Dr.	Residence	1 1/2	1 1/2
Holmes, Mr., 9414 Bishop	Residence	1 1/2	1 1/2
Kass, Peter, 10419 S. Leavitt	Residence	1 1/2	1 1/2
Lindberg, E. R., 232 E. Walton St.	Residence	1 1/2	1 1/2
Magill, H. S., 1642 E. 56th St.	Residence	1 1/2	1 1/2
McDougal, Robert, 4804 Woodlawn Ave.	Residence	1 1/2	1 1/2
Mentzer, J. P., 4720 Greenview Ave.	Residence	1 1/2	1 1/2
Meyer, Mr. Carl, 2430 Lakeview	Residence	2	2
Our Lady of Grace Rector, 2455 N. Hamlin	Residence	1	1
Rosenthal, Mr., 5440 South Shore Dr.	Residence	1	1
Schoenstadt, Henry, 1443 E. Hyde Park Blvd.	Residence	1 1/2	1 1/2
Shaw, Ralph M., 1427 N. State Pkwy.	Residence	1 1/2	1 1/2
Stein, S. M., 5490 South Shore Dr.	Residence	1 1/2	1 1/2
Stephenson, C. F., 6523 Woodlawn Ave.	Residence	1 1/2	1 1/2
Strauss, Dr. S., 5490 South Shore Dr.	Residence	1 1/2	1 1/2
Walgreen, C. R., 8910 S. Hamilton	Residence	3	4
Wallis, Franklin, 2301 Berwyn Ave.	Residence	1 1/2	1 1/2
Williams, Herbert E., 4559 Ellis Ave.	Residence	1 1/2	1 1/2
Wrigley, Mr. Phillip, 2466 Lakeview Ave.	Residence	1 1/2	1 1/2

Restaurants

Blocks Restaurant, 2131 S. Michigan Ave.	Restaurant	7 1/2	8 1/2
Jacks Sandwich Palace, 1007 Argyle St.	Restaurant	1	1
La Salle St. Station, 139 W. Van Buren St.	Restaurant	30	35
Thompson's Restaurant, 1030 Wilson Ave.	Restaurant	15	17

Stores

Dutch Mill Candy, 1109 Bryn Mawr	Store—Candy	15	16 1/2
Dutch Mill Candy, 6720 Stony Island	Store—Candy	3	3 1/4
Snyders, Mrs. Candy, 406 S. Michigan Ave.	Store—Candy	3	3
Blums North, 920 N. Michigan	Store—Clothing	15	18
Graysons Shops, Inc., 2732 Milwaukee Ave.	Store—Dresses	15	15
Howards Clothing, 222 S. State St.	Store—Clothing	25	30
Mitchell Bros., 337 S. Franklin St.	Store—Clothing	3	3
Adler, David, 139 N. Michigan Ave.	Store—Fur	3	3 1/2
Max Seigel, 2637 Milwaukee Ave.	Store—Fur	7 1/2	7 1/2
Silberman & Becker, 1117 W. 35th St.	Store—Fur	10	10
Schlusser, Louis, 4822 N. Lincoln Ave.	Store—Food	10	11 1/2
Mee Wau Lung, 2212 S. Wentworth	Store—Miscellaneous	10	10
Neisner Store 5 & 10, 3136 W. 63rd St.	Store—Miscellaneous	15	17
United Air Lines, 5940 Cicero	Store—Miscellaneous	15	19 1/2

Funeral Parlors

Linhart, 1343 W. 19th St.	Undertaker	7 1/2	8 1/2
McReady Funeral Home, 4506 Sheridan Rd.	Undertaker	3	3

Theaters

Hub Theater, 1746 W. Chicago Ave.	Theater	50	50
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Miscellaneous

Appolo Barber Shop, 161 N. Clark St.	Barber Shop	3	3 1/4
Dearborn Barber Shop, 112 N. Dearborn St.	Barber Shop	3	3 1/4
Reaper Barber Shop, 109 N. Clark St.	Barber Shop	3	3 1/4
Treacy, Dr. J. W., 6004 W. North Ave.	Dentist	1 1/2	1 1/2
Hartman Drug, 505 N. Michigan	Drug Store	20	20
Liggetts Drug Store, 801 E. 63rd St.	Drug Store	10	12
Walgreen Drug Store, 3601 Broadway	Drug Store	7 1/2	8
Henrotin Hospital, 929 N. La Salle St.	Hospital (Nursery)	1 1/2	1 1/2
Passavant Hospital, 303 E. Superior	Hospital (Patients)	1	1
Curtis Candy Co., 337 E. Illinois (Add.)	Industrial—Candy	85	150
Nutrine Candy Co., 419 W. Erie St.	Industrial—Candy	7 1/2	8 1/2
Automatic Elec. Co., 1061 W. Van Buren	Industrial—Mfg.	3	3 1/2

Total—112 Installations 644 1/4 753 3/4

Lipman Systems Used For Industries & Stores In Its Own Home Town

BELOIT, Wis.—A prophet—or a manufacturer of air-conditioning equipment—is not always without honor in his own city.

Take for example the case of General Refrigeration Sales Co., manufacturer of Lipman air-conditioning equipment. The home offices of Beloit Iron Works, manufacturer of paper-making machinery, and Freeman Shoe Mfg. Co., maker of custom-built footwear, now are equipped with Lipman conditioning systems.

In fact, the visitor to Beloit could spend his days—and end them, as well—in Lipman-supplied comfort. Ford Hopkins drug store, the Hilton hotel, and the Rosman-Uehling-Kinzer funeral chapel are three more places in the city in which the company's air-conditioning equipment is installed.

Charcoal Filters Used to Solve Odor Problem in Stockyard System

OKLAHOMA CITY—The solution of the odor problem in the office of the Air Reduction Sales Corp., near the packing yards, attempted in the installation of a year-round air-conditioning system has successfully withstood the summer test, officials of W. C. Dance, Inc., who made the installation, reported recently.

Charcoal filters, to do away with the odor, were used in addition to the regular duct filters.

The installation was a 7 1/2-hp. job, and provided for heating and cooling one private office, the general office, and rest rooms.

Two Illinois Utilities Holding Campaigns on Air Conditioning

CHICAGO—To stimulate public acceptance of air conditioning, two utilities, the Peoples Gas Light and Coke Co., and Public Service Co. of Northern Illinois, are now conducting a campaign with special advertising material and exhibits which broadcast information and clarify public opinion on the meaning of air conditioning.

A series of three advertisements covering as many phases of air conditioning is being run in all Chicago newspapers by Public Service Co.

First insertion pointed out that although most people regard air conditioning merely as a means of cooling their rooms, it really covers five additional functions: circulating, cleaning, humidifying, dehumidifying, and heating.

Follow-up advertisement considered the costs of air conditioning. Profit possibilities for theaters, restaurants, and other business houses was the subject of the third unit of the advertising series.

Peoples Gas Light and Coke Co.'s participation in the promotional campaign comprises the "Home Comfort Show," opened recently at its downtown headquarters, which features a display of gas heating and air-conditioning equipment.

Companies whose equipment is on display include General Electric Co., The Bryant Heater Co., The Trane Co., Crane Co., L. J. Mueller Co., Surface Combustion Corp., American Foundry and Furnace Co., Forest City Foundries Co., James B. Clow & Sons, General Gas Light Co., and American Radiator Co.

St. Louis Hotel Statler Advertising Features Cooling of Bedrooms

ST. LOUIS—This city's Hotel Statler, which recently installed air-conditioning in 300 of its guest rooms, is featuring that fact in an advertisement appearing in the current issue of *United States News*, weekly newsmagazine of national affairs.

"It's Cool in St. Louis, in Hotel Statler Air-Conditioned Bedrooms," reads the headline. A smaller line, underneath, reminds the reader that there is no increase in rates.

Copy theme is along the following lines:

"Now . . . you'll really look forward to your next St. Louis trip. You'll step from an air-conditioned train—say 'Statler' to the cab driver—and be whisked away to a room where you can work and rest without heat and discomfort—where you can sleep soundly in a haven of quiet coolness.

"Of course, you'll find cool, comfortable air conditioning in our main lobby, restaurants, bar, barber shop, conference rooms, and private dining rooms."

Pictured in the advertisement is the "Statler Regulator," which shows inside and outside temperatures, and allows the guest to control conditions in his room to his own wishes. (ELECTRIC REFRIGERATION NEWS, July 8.)

Tulsa Sandwich Shop Buys Conditioner


TULSA, Okla.—Recently completed here was a 3-hp. Frigidaire air-conditioning installation in the Lucky Seven Sandwich shop of this city. The work was done by the W. C. Dance, Inc., of Oklahoma City.

Delco

MOTORS

● America is rebuilding: new factories, new buildings, new homes . . . homes which are being equipped with the latest time-and-effort-saving household appliances. It is no coincidence that so many of the refrigerators, washers, ironers, air conditioners and oil burners which go into these new homes are Delco-powered. Wise buyers have come to look upon Delco-powered appliances with special confidence—just as progressive manufacturers and dealers have come to favor Delco motors for their quiet operation, dependability and long life.

DELCO PRODUCTS CORPORATION, Dayton, Ohio
Made in Canada by McKinnon Industries, Ltd., St. Catharines, Ont.



The Buyer's Guide

Special rates apply to this column only.
Write Advertising Dept. for full information.

PEERLESS FIN COILS

WHERE THERE AIN'T
NO JOINTS THERE
AIN'T NO LEAKS



"Listen, fellow, where do leaks come from? Why, from the joints, of course—and if there ain't any joints there won't be any leaks. And that's that! Peerless Coils are made of continuous tubing, no soldered return bends. There's a lot of things you ought to know about the Peerless line. Why don't you write for their catalog?"

PEERLESS ICE MACHINE COMPANY

TWO FACTORIES

CHICAGO
515 W. 35th St.

Cable address
KRITZER-CHICAGO

NEW YORK

43-00 36th St., L.I.C.

Representatives in all Principal Cities

30 MODELS for EXACT and GENERAL REPLACEMENT

RANCOSTAT

—and all are made of STAINLESS STEEL

Easy to install—and hard to put out of commission! There are many EXACT REPLACEMENTS in the complete Rancostat line of highest-quality thermostats. Ask your jobber for the genuine Rancostat—the Stainless Steel Thermostat.

Ranco, Inc.
Columbus, Ohio

STANDARD REFRIGERATING APPLIANCES

THERMOSTATIC EXPANSION VALVES

Write for bulletin on complete line covering refrigerating appliances, liquid line filters, dehydrators, acid neutralizers, standard parts and materials, service tools, shaft seals, bearing metals and parts. Descriptive literature will be gladly furnished on any or all of these lines on request.

AMERICAN INJECTOR COMPANY 1481-14th Street, Detroit, Mich.

IMPERIAL Valves Fittings & Tools

In this thoroughly modern line, the valves are brass forgings (seepage-proof), and also, the nuts, tees, elbows and crosses. The Siphon 3-Way Shut-off Valve (right) operates on the siphon principle, and is practically rupture-proof. 207-C, \$2.87 to \$3.50. The Imperial Tube Cutter (below) makes a quick, clean right-angle cut. 94-F, \$2.25. 104-F, \$3.50.

Order from your local jobber.
Write for new catalog 77-E
IMPERIAL BRASS MFG. CO.
565 S. RACINE AVE. CHICAGO

GILMER V-Belts

For electric refrigerators, washers, beer pumps, oil burners, compressors, air-conditioning units, etc. . . . Gilmer has a V-Belt to fit . . . from the largest stock of moulds in the world. Write for V-Belt catalog.

QUIET EFFICIENT LONG-LIVED

GILMER BELTS

L. H. GILMER COMPANY, TACONY, PHILADELPHIA

Refrigeration Instruments by Marsh

MARSH REFRIGERATION DIAL THERMOMETERS are suitable for every type of installation and application. They are manufactured in several sizes and are available in a wide variety of temperature ranges either with Fahrenheit or Centigrade scales. These instruments are constructed with self-contained bulb or in distant reading construction with connecting capillary tubing and bulb. The self-contained instruments are available in straight form, angle form or oblique.

All Marsh dial thermometers are constructed with adjustment feature permitting positive calibration of the instrument in the plant, laboratory or instrument department without removing mechanism from case.

Jas. P. Marsh Corporation
2067 SOUTHPORT AVE., CHICAGO, ILL.

Dealers in Fashionable Suburb Beset With Difficulties Because of the Resident's Buying & Living Habits

By Eleanor Blum

BIRMINGHAM, Mich.—The "\$500 rich" who live beyond their means make this Detroit suburb the worst credit risk town in Michigan and a "difficult town in which to sell appliances," dealers here declare.

Selling refrigerators and other appliances in a town used as an exclusive residential district for former Detroit residents has also disadvantages such as the inaccessibility of the buyer, and the big-city buying habits of the residents, they stated.

These dealers (there are four in town, each handling one line on an exclusive basis) and the utility representatives have no complaints against one another. Their verdict is that Birmingham is a "clean selling town."

"This town's different" is the way Carl W. Eley, sales manager of Leonard Co., General Electric dealer, explained it.

"You can't get into a home without an appointment, and even then it's difficult," he pointed out.

"Not long ago, because we didn't cold canvass, General Electric thought there was something wrong with us. A crack salesman was sent out from the factory to 'crack this town open' by a live-wire canvassing program.

In a couple of weeks he had made no progress, so the company sent a district man, who went out with the salesman. All the two of them got out of the trip was permission to give one ironer demonstration. They just couldn't get past the door."

Sales Vary with Building

Leonard gets its names directly from the builders, and from service department tips. The Dodge reports, received by this dealer, tell in each issue just how far along individual houses are—the architect is laying out the plans, or the foundation is in, or the roof is being put on—so that the appliance dealer knows about a new house from the minute the architect goes to work on it.

Partially because building activity has increased so in the last year, refrigerator business is approximately 50 or 60% better, Mr. Eley said. This dealership sells in the neighborhood of 40 units a year, with the 7-cu. ft. model the best seller.

Service Work Farmed Out

Leonard Co. farms its service work out to a refrigeration company on all makes except G-E, which are sent in to the factory. Mr. Eley considers the fact that he has had to send only one General Electric to the factory in five years, a record.

The service man, with headquarters in Pontiac, accepts the work on a percentage basis; that is, Leonard gets a cut on each job turned over to him.

In a tie-in with national advertising this dealer advertises in the Birmingham paper and occasionally in a Detroit paper. Postcards have been found effective, mailed either to a general or selected prospects list.

Trade-ins Only 'If Sold'

Unless forced to it by competition Mr. Eley makes it a practice not to accept trade-ins. When he does, he begins by telling the customer he can't give him a thing for his machine, and later offers to put it on the salesroom floor for him and sell it for what he can get. If this is done, the dealer deducts only his sales expense, the profit going to the customer. If the machine is not sold, it goes back to the owner, so that Leonard does not have a lot of "dead" merchandise on its hands. So far this summer, Mr. Eley has accepted only two trade-ins.

Competition from Sears, Roebuck is felt in Birmingham because the mail-order house advertises in the Pontiac papers, which have wide circulation in Birmingham.

Although sales of "Ventura" attic fans were heavy during July, Mr. Eley believes that air conditioning in any extensive form, even room coolers, should be left to heating and ventilating companies equipped for installation work.

Bissett Uses 'Cold Gauge'

Harry E. Bissett, who has built an addition onto the back of his home to house the new Frigidaire dealership here, said that for the most part Birmingham residents are "up on clothes" and down on household "extras."

In spite of this sales difficulty Mr. Bissett has sold approximately 25 Frigidaires since the dealership was opened in May of this year. Three years ago Mr. Bissett had the Kelvinator agency in Birmingham.

Broadside advertising the free cold gauge which Frigidaire is distributing is Mr. Bissett's chief promotion scheme at work now. Approximately 50 stubs, representing that many

thermometers given away, lay on his desk, filled in with information on the prospect's name, address, present refrigerator, its age, and whether and when the home owner intends to buy another refrigerator.

The result of this campaign, Mr. Bissett said, was probably spoiled by the fact that many of the handbills were still lying on the porches of vacationers. August is a slack month, he said, because homeowners take advantage of the last few weeks before the opening of school for a vacation.

Residents Drive Hard Bargains

Salesmen are scarce in Birmingham, —in fact, they just aren't to be had. Mr. Bissett needs four or five and can find only two. Although his staff is not yet well organized, his service man has proven a valuable source of leads.

Although most of the other dealers make extensive use of the Dodge reports, the Frigidaire dealer said that there was no profit in going after architects and builders; the builder gets so much of a discount that there's no money in the deal for the seller.

Trade-ins are no problem, Mr. Bissett says, because he usually has them sold before he accepts them. There are almost always one or two persons on the waiting list for second-hand boxes, he related.

Of all the advertising appropriation reserved by the Sells Electric Co., Westinghouse dealer, the \$3.50 a month used for inserting an advertisement in the local section of the *Christian Science Monitor* brings the best results, Mrs. Myra W. Sells declared.

Birmingham has a large Christian Science congregation and the *Monitor* is read by all of its members, she said. Many times, a monthly statement sent to one of its readers has come back with the payment and a note to the effect that the customer was pleased to see Sells' advertisement in the *Monitor*.

Salesmen Scarce

Mrs. Sells says that Birmingham residents, many of whom are living beyond their means, are hard bargainers. A number of residents, accustomed to discounts from the companies they work for, find it unfamiliar to buy anything at list price. Mrs. Sells said. However, Birmingham dealers for the most part stick closely to a policy of no price cutting.

Although refrigerator business is at least 100% better than last year this dealer finds that Detroit offers stiff competition. Women used to shopping for clothes and household articles in Detroit buy their refrigerators there too, sometimes paying an extra delivery charge.

That the customers are accustomed to cutting corners is seen, Mrs. Sells believes, in the large number of women who will buy a refrigerator at Hudson's, charge it, pay \$20 or enough to carry it from month to month on their accounts, and so save the financing costs.

Other residents, she stated, realize the desirability of ready service near at hand and buy in Birmingham. Service work now is compensating for the low ebb which sales take in August, she said. Sells Electric has three men on its service staff.

No Cold Canvassing

She concurred with the other dealers' opinion that cold canvassing was next to impossible because canvassers can't get past the door to home owners.

The store's customer list, kept up yearly, has gained the names of about two-thirds of the town's home owners. Although the store has not adopted any specified routine for call-backs, leaving the number to be governed by the business of the salesmen, it has found that such customer calls invariably bring in the best leads. The two salesmen employed by Sells Electric work on a salary plus commission basis.

Large air-conditioning units are not looked upon as a very good sales bet by this dealership, although the July heat wave brought three orders—\$750 worth of American Blower and Ventura ventilating equipment sales.

Norwich Dealer Moves Into Larger Quarters

NORWICH, Conn.—Carl E. Berkoff, Westinghouse dealer, has moved his showrooms from 119 Franklin St. here to larger quarters in the Sunlight Building. A complete Westinghouse model kitchen has been installed. Mr. Berkoff entered the appliance field nine years ago.

Palestine's Kelvinator Man Introduces U. S. Style Ice Cream

(Concluded from Page 7, Column 5)
new variety caught on quickly, and boomed ice cream sales.

This year Mr. Schimmel is concentrating on Temprites, and has been signally successful with them.

Salesmen should be good linguists in Palestine, Mr. Schimmel points out, for there are so many different languages spoken in this newborn country. In both Jerusalem and Haifa a knowledge of Arabic is essential.

But if the salesman is really good, it doesn't really matter much what language he speaks. Mr. Schimmel agrees with Vice President FRANK HITER of Stewart-Warner that "any dumb so-and-so should be able to sell that refrigerator."

As a matter of fact, Mr. Schimmel's sales manager, MORITZ INTRATER, doesn't speak English.

Most sales are made on a sales-contract-and-lease hire purchase basis, with terms running up to two years. Local banks handle the paper. Scarcely any reverses have been noted.

Mr. Schimmel reports that in Syria his agent, IBRAHIM SAAD & FILS, of Bayreuth, are getting off to a fine start this year. Syria is going to be an excellent refrigeration market, he forecasts.

Two of Mr. Schimmel's best friends in Palestine are also former Philadelphians: HARRY VITALE, manager of the Central Bank of Cooperatives, and GERSHON AGRONSKY, editor of *The Palestine Post*, only English daily newspaper in Palestine, Syria, and the Trans-Jordan.

Utility Uses 3-Part Plan To Sell Conditioning

CLEVELAND—With its goal a usage of 500 kwh. per year per installation, Ohio Public Service Co. is planning to promote air conditioning in connection with hot air furnace installations throughout its territory. C. L. Dunn, general new-business manager, reports.

To secure the cooperation of architects, contractors, builders and heating, ventilation, and air-conditioning dealers, the utility has designed a three-part plan.

The program has been drawn up with special view toward attracting the attention of contractors, utility statistics showing that 95% of the homes in the territory of 259 Ohio communities cost less than \$10,000 and are more subject to contractors' advice than to that of architects.

Part of the program includes supplying two outside signs calling attention to air-conditioned homes. Houses using the equipment will be floodlighted free of charge for a 10-day period, and the utility will insert 25-line advertisements in the daily papers for the period that the air-conditioned home is open for public inspection.

Renewable Fuse Marketed By Louisville Company

LOUISVILLE—A new type of renewable fuse plug, using mercury as the current conductor instead of the usual material, is being put on the market by Perma-Fuse Corp., with headquarters here.

Operating principle of the Perma-Fuse, as it is called, is the expanding power of mercury under heat. When an overload or short circuit occurs it generates heat, expanding the mercury and breaking the circuit. To renew the fuse, the plug is simply unscrewed and swung, contact end down, like a thermometer. This returns the mercury to the two contact points, and the plug is again ready for service.

Logan Sales Co. Develops Extension Cord Yoke

LOS ANGELES—Logan Sales Co. has recently put on the market the Logan extension cord twist yoke, a development of extension cord contact equipment which is said to assure the permanency of any connection, and which is designed for use with electric refrigerators and other portable electrical appliances.

A slight turn places the yoke's locking pins in counter-sunk holes, assuring permanence to the connection and removing strain from the contacts, the manufacturer claims. A rubber gasket under the outlet cover prevents shorting or clogging of the contact by dirt.

Adaptable to any standard outlet box, the yoke may be had with pre-punched covers, if desired, or old covers may be punched to order.

COMMERCIAL Service Manual

By K. M. NEWCUM

Types of Valves Used on Cylinders for Storage of Methyl Chloride & Freon

Chapter 3—Refrigerants (Continued)

R. & H. Chemicals Co. supply Artic methyl chloride in three various sized cylinders as shown in Fig. 12. The 60-lb. cylinder is 59 in. high (overall) and 8 in. in diameter. The 90-lb. cylinder has a 10 in. diameter and is 55 in. high while the 130-lb. cylinder is 54 in. high and 12 in. in diameter.

Fig. 13 shows an Artic cylinder valve of the packed type with a non-rotating stem. The packing may be tightened first by turning jam nut "C" up, or counter clockwise, and then tightening packing nut "B" to the right or clockwise.

The outlet thread is $\frac{3}{4}$ -in. straight pipe thread and is fitted with an outlet cap nut and washer when not in use.

The safety device on this type of valve (Fig. 13) consists of a frangible disc "I." This disc is a thin piece of bronze or copper and will rupture or burst at a pressure around 500 lbs. per square inch. The disc is held in place

by over-heating have been investigated where it was found that some thoughtless user had replaced the original safety disc with a piece of thicker metal. Any tampering with any type of safety device may result in serious damage both to property and persons.

Another type of R. & H. cylinder valve is shown in Fig. 14. It is of the packed type. The packing may be tightened first by installing outlet cap nut and washers "F" and "G," then removing control handle "A" by making a counter-clockwise turn. With handle "A" removed, tighten packing nut "B" with a clockwise turn.

This valve is supplied with fusible metal poured directly into the valve body. See "M" in Fig. 14. It has a melting point around 158° F. The outlet thread is $\frac{3}{4}$ inch, the same as the type shown in Fig. 13.

Another R. & H. valve is of the diaphragm packless type. It requires only 1 to 1½ full turns to open this valve completely. The multiple diaphragms effect a metal-to-metal seal between the valve and the atmosphere and require no attention in the field.

The safety device is of the frangible disc type. The disc is .0025 inch thick and has a bursting pressure at 600 lbs. per square inch.

The outlet thread is $\frac{3}{4}$ -in. straight pipe thread and should not be used with tapered pipe thread fittings. For reducing to SAE sizes, the adaptors shown in Fig. 15 should be used.

As illustrated, the valve is fitted with hand wheel for hand operation.

Kinetic Chemicals Co. Freon cylinders are of the following sizes and capacities:

- 1—Height 19 inches, diameter 4 inches, tare weight 10 lbs., Freon capacity 10 lbs.
- 2—Height 20 inches, diameter 6 inches, tare weight 23 lbs., Freon capacity 25 lbs.
- 3—Height 48 inches, diameter 10 inches, tare weight (forged) 110 lbs., (welded) 68 lbs., Freon capacity 145 lbs.

The cylinder valve used on the above cylinders is shown in Fig. 16. It is of the packed type and the packing may be tightened by turning the hex packing nut to the right, clockwise. The valve stem is squared $\frac{3}{4}$ inch for wrench operation.

The outlet thread is $\frac{3}{4}$ -in. straight pipe thread. The fusible metal lug is filled with 165° F. fusible metal.

Frigidaire's Freon cylinders are fitted with the diaphragm packless valve as shown in Fig. 17.

Some of Frigidaire's older cylinders are fitted with a packed type of valve.

The packing may be tightened by installing the outlet cap nut and opening the valve about two full

Freon Valves

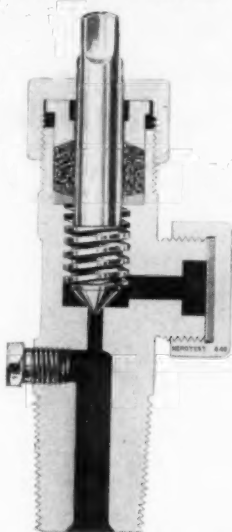


Fig. 16—Cylinder valve used by Kinetic Chemicals Co. on Freon Cylinders.

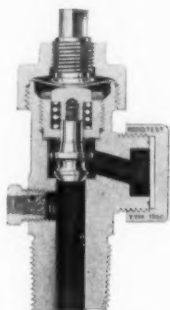


Fig. 17—Diaphragm packless valve used by Frigidaire on Freon cylinders.

turns, then loosening lock nut and tightening packing nut. When packing nut C has been properly tightened, it should be locked in place by tightening lock nut.

Although all refrigerant cylinders have about the same physical strength and other characteristics, it is highly recommended that the cylinders belonging to refrigerant manufacturers be used only for the refrigerant with which they were originally charged. For example, in transferring refrigerants from a larger to a smaller cylinder, SO₂ should not be

BRIDGEPORT knows BELLOWS

Why are Bridgeport Bellows and Thermostat Assemblies the permanent solution of many trying design problems of the refrigeration and allied industries?

Because their acknowledged superior performance as flexible seals, packless glands, expansion chambers, pressure diaphragms, thermostat members, etc.,

is the result of their inherently correct metallurgy and mechanical design... a reflection of Bridgeport's intimate knowledge of Bellows' characteristics and their application possibilities.

This knowledge is at your disposal. Write for Bulletin—HR. Bridgeport Thermostat Co., Inc., Bridgeport, Conn.



put into a methyl chloride cylinder, and vice versa.

Refrigerant cylinders owned by refrigerant manufacturers should not be used by service men for pumping refrigerant from any system.

For this work the service man should equip himself with one cylinder for each of the various refrigerants which he may use. Each of these service cylinders should be of a known refrigerant capacity and should not be filled to over that capacity, by actual weight.

It is common practice to place the cylinder being used for pumping refrigerant from the system in a pall of cold or ice water to facilitate condensation. It is possible under such conditions to pump the cylinder completely full of liquid. The liquid will be cool or cold and the pressure may

(Continued on Page 12, Column 3)

Contents—This Week And Next

In this instalment of K. M. Newcum's "Commercial Service Manual" is the concluding part of Chapter 3, "Refrigerants," and all of Chapter 4, "Methods of Transferring Refrigerants to Smaller Units."

Next week's instalment will comprise Chapter 5, "Drying of Refrigerants." Instalments of the "Commercial Service Manual" are published in each issue of the News.

Artic Cylinders

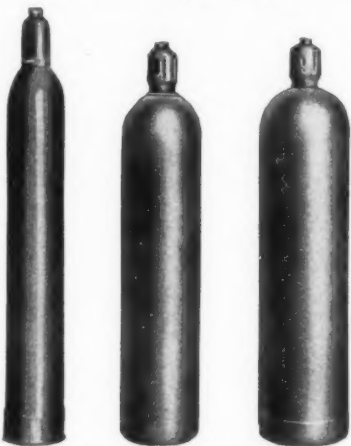


Fig. 12—Cylinders used for R. & H. Chemicals' Artic methyl chloride. Left to right: 60-lb. capacity, 90-lb., and 130-lb.

by safety disc cap "H," which is properly tightened at the factory before the cylinder is shipped.

Users are cautioned against tampering with this safety device in any way. If the cap is loosened, the entire contents of the cylinder will be lost. Should a leak develop around the safety, it is suggested that the contents of the cylinder be transferred into an empty cylinder and the leaky one returned to the manufacturer, who is equipped to make repairs on the equipment.

A few instances of ruptured cylin-

Refrigerant Cylinder Valves

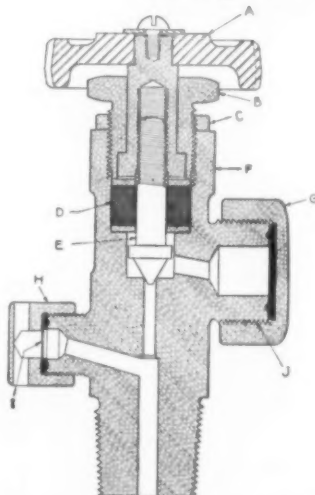


Fig. 13—Packed type Artic cylinder valves. Parts are: A—control handle; B—packing nut; C—jam nut; D—packing; E—valve stem; F—valve body; G—outlet cap; H—safety disc cap; I—safety disc; and J—nozzle.

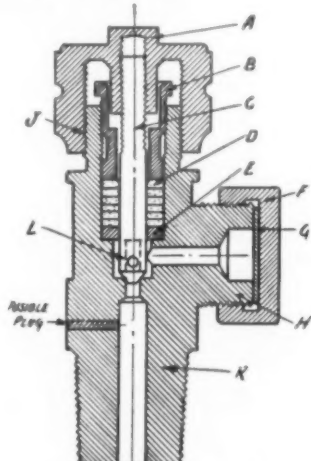


Fig. 14—Another packed type Artic cylinder valve. Parts are: A—control handle; B—packing nut; C—valve stem; D—packing; E—packing collar; F—protecting cap; G—fibre gasket; H—nozzle; J—V thread right hand; K—valve body; L—pin key; M—fuse plug; melts at 158° F.

PERFECTION

Refrigeration Parts Are ACCURATE



COMPRESSOR PARTS

Perfection resources, energies and skill are reflected in this complete line of refrigeration parts—all certified to excel.

Service engineers quickly note the superiority of these parts that are held to exacting tolerances to insure ease of installation, perfect fit, quietness of operation and long, dependable service.

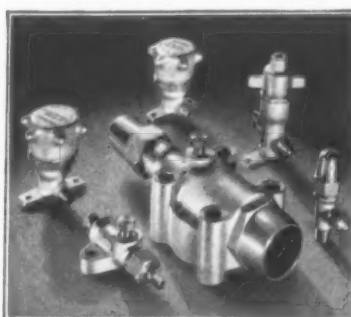
This popular line includes VALVES, FITTINGS, TOOLS, and COMPRESSOR PARTS. The compressor parts are not limited to a single make, but are available for Copeland, Frigidaire, Kelvinator, Servel, Universal, Zerozone and others.

Be sure to look for the seal of Perfection when you buy. There is an authorized jobber near you who displays this emblem.

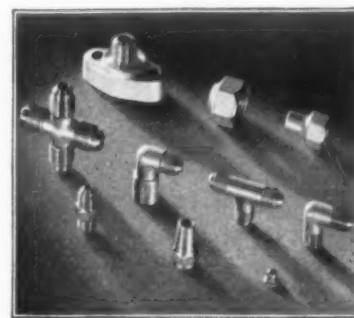
PERFECTION REFRIGERATION PARTS CO.
(A division of the Perfection Gear Company. Established 1919)

HARVEY, ILLINOIS

A Complete Line Certified to Excel



VALVES



FITTINGS



The Buyer's Guide

Suppliers Specializing in Service to the Refrigeration and Air Conditioning Industries

SERVICE DOESN'T FALTER WHEN IT COMES FROM HARRY ALTER

WHEN THE TEMPERATURE SOARS—
DEPEND ON US FOR FAST SERVICE

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One-day service on your order for any parts, supplies or tools you may need for any type of refrigerator or air conditioner. QUALITY MERCHANDISE, absolutely guaranteed and offered at the lowest prices. Deal with us—obtain all your needs from one source—and rely absolutely on getting exactly what you order. WHOLESALE ONLY for your protection. Request big, complete, new catalog on your business card or letterhead. It's FREE.

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ALL YOUR NEEDS FROM ONE SOURCE

SEND FOR BIG
FREE
CATALOG

NOW!

HASCO
CHANGE-OVER

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Chapter 4

Method of Changing Refrigerants to Smaller Units

(Continued from Page 11, Column 4)

be below normal, but when this overloaded cylinder is taken from the cold water and put in a warmer atmosphere, the pressure increases very rapidly, and, if the cylinder is completely filled with liquid, the internal pressures developed will be hydrostatic. Dangerously high pressures will result.

Although refrigerants are obtainable in a variety of sizes of cylinders, the smaller ones being most suitable for service work, many service departments have their own service cylinders and purchase refrigerants in larger cylinders.

This procedure requires the transfer of the refrigerant from the larger cylinders to the service cylinders, or to evaporators and condensing units in the shop.

Many different hook-ups have been used to accomplish this transfer. Fig. 18 shows a simple method provided by Virginia Smelting Co. Although it applies to SO₂ the same hook-up can be used for methyl chloride or other refrigerants.

Fig. 19 shows a similar hook-up recommended by Ansul Chemical Co. The purpose of the vent to the outside and vent valve is to relieve any air that may be in the small cylinder hindering the flow of refrigerant from the large cylinder.

The Ansul transfer set-up should operate as follows:

Place large cylinder in rack with the valve pointing downward. The valve outlet is threaded for 1/2-in. standard pipe fittings. Attach a 1/2 x 1/8-in. reducer coupling and then screw in a standard 1/4-in. flared tube fitting. The small drum to be filled is connected to a 1/4-in. standard pipe tee either by a nipple or by reducers, depending on the valve thread. On one of the other outlets of the tee connect a 1/4-in. needle valve. Screw a 1/4-in. flared tube fitting in the other outlet. Then connect the two cylinders by a piece of 1/4-in. copper tubing as indicated. The copper tubing should have a single loop about one foot in diameter between the two cylinders.

Before starting to fill the smaller drum it is advisable to draw a vacuum on the smaller drum. If perfectly evacuated, the drum will fill without difficulty.

When all connections are made, balance the scale with a rider. The weight and all weighings must be made with apparatus completely connected. Now open the inlet and both container valves, moving the scale rider along as the liquid enters the small drum until the desired weight of refrigerant has been added. Now close the inlet and small drum valves and release pressure through the vent valve.

In case the small drum is not evacuated, it will be found that liquid will flow into the drum for a short time and then stop. If this happens, close inlet valve and the vent valve for 15 to 30 seconds, purging off the air confined in the small drum. Then close the vent valve and open the small drum valve and proceed with the filling. It may be necessary to repeat this operation several times if there is a great deal of air in the small drum.

In case the large cylinder is cooler than the small one, no liquid will flow. To overcome this difficulty, chill the small cylinder by placing it in cold or ice water.

Use of Kerotest Charging Stand

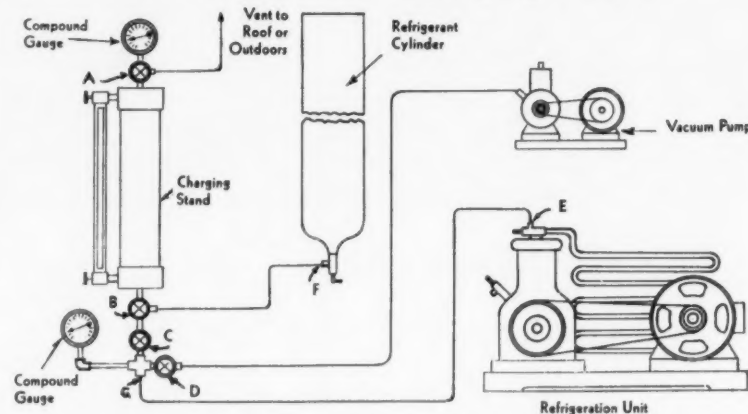


Fig. 20—Drawing showing application of Kerotest charging stand.

The Kerotest refrigerant charging stand shown in Fig. 20 is a later development in transfer equipment. This figure shows the charging stand when being used to charge a condensing unit.

The charging stand is provided with a gauge glass on the left side of the cylinder, which by the use of a scale is calibrated in pounds and ounces (or may be calibrated in metric system) for the purpose of measuring the refrigerant. This makes weighing by scales unnecessary. The charging stand has the following refrigerant capacities:

11 1/2 lbs. SO₂, 8 lbs. methyl chloride, 11 1/2 lbs. Freon, 4 1/4 lbs. Iso-butane, 4 qts. oil.

The design of the charging stand is such that all necessary connections can be made to the one unit, thereby simplifying the transfer procedure. To install the charging unit, run a line from the safety connection on the upper right side of the cylinder to a tee. Run a line from the connection on valve "A" to this tee. Run one line from this tee to the outside of the building or to the roof as desired.

Connect a line from valve D to a vacuum pump.

Invert the large cylinder as shown in Fig. 20 and connect to filter connection on valve "B."

Install a seal cap on connection "G" and tighten.

Open both gauge-glass shut-off valves all the way to the left. Open valves "B," "C," and "D." Leave valve "A" closed. Start vacuum pump and operate for 30 minutes. Both compound gauges will register vacuum on charging unit. It should be below 27 inches. During this period keep the cylinder warm with a blow torch to remove all traces of moisture and air.

After 30 minutes close valves "D," "C," and "B." Stop vacuum pump. Open cylinder valve "F" and test connections for leaks. Then open

valve "B" and allow charging cylinder to fill. Note liquid as the level rises in the scale. If cylinder fills too slowly, crack valve "A" slightly and charging cylinder will fill rapidly. Allow to fill to its capacity as shown on the scale, then close valves "A" and "B." The charging unit is now ready for use.

To charge a smaller cylinder or condensing unit, connect line from connection "G" to small cylinder valve or service valve on unit to be charged; open this valve.

Start vacuum pump and open valve "D." This will draw a vacuum on the unit to be charged, the charging line, compound gauge, etc. When high vacuum is reached close valve "D." At this point the unit or cylinder is completely evacuated and ready to accept charge. Determine the actual amount in pounds or ounces to be charged.

Open valve "C" and refrigerant will flow from charging unit to unit being charged. Note drop in liquid level in gauge glass and on scale. When level is down, indicating that correct amount has been drawn from the charging cylinder, close valve "C." Apply heat if necessary to charging line and close valve on charged cylinder or refrigerating unit. The actual number of pounds and/or ounces indicated on the scale has been charged into the cylinder or unit. It is not necessary to weigh either one.

If desired, the charging cylinder may be refilled for future use.

The safety device is a rupturable safety disc to release at approximately 400 to 480 lbs. per square inch.

Another very useful piece of equipment for use in lifting a cylinder vertically with the valve down for connection to the charging stand or for use in filling smaller cylinders, is the Ansul cylinder hoist, shown in Figs. 22, 23, 24, 25, and 26.

The hoist is most suitable for cylinders.

(Concluded on Page 13, Column 3)

Transfer Set-Ups

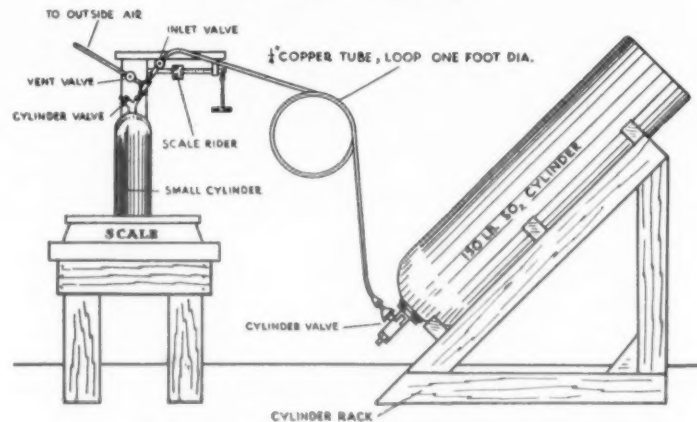


Fig. 19 (above)—This drawing shows the set-up of equipment for refrigerant transfer as suggested by Ansul Chemical Co.

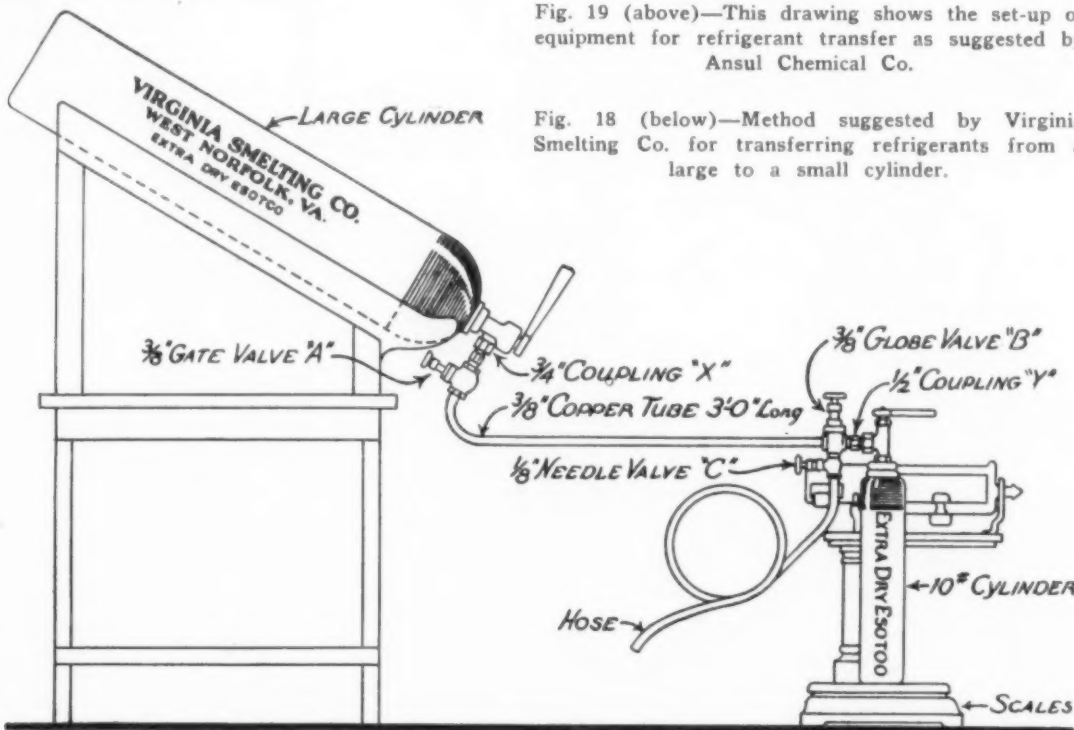
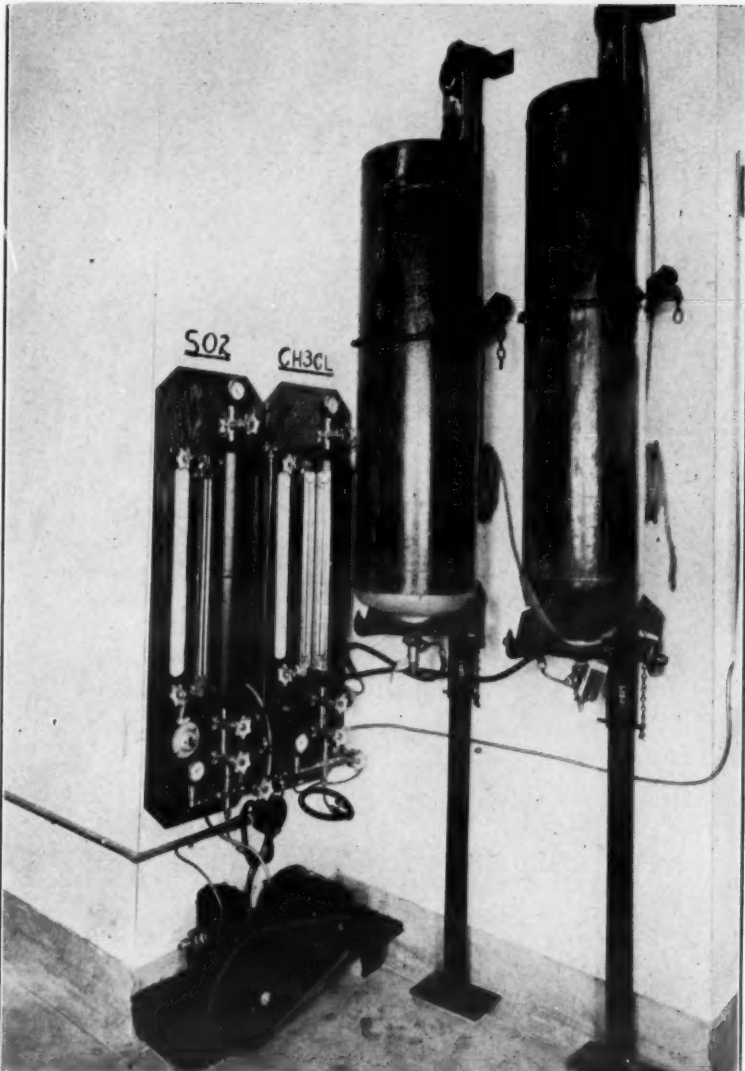


Fig. 18 (below)—Method suggested by Virginia Smelting Co. for transferring refrigerants from a large to a small cylinder.

Ansul Cylinder Hoist



This setup, in operation at the Harrisburg, Pa., branch of Melchior, Armstrong, Dessau Co., shows a refrigerant charging stand connected to a vacuum pump, with refrigerant cylinders suspended on an Ansul hoist.

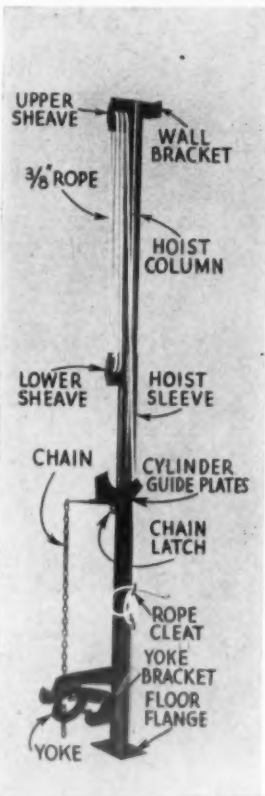


Fig. 22—Complete assembly of Ansul cylinder hoist, operation of which is explained in the following figures.



Fig. 23—First operation is to screw yoke on cylinder shoulder threads.

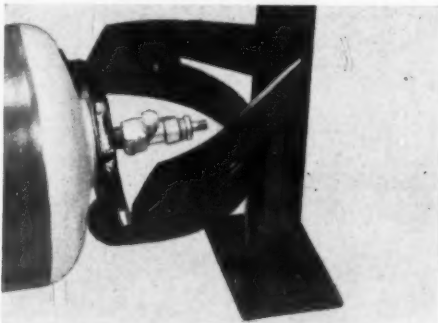


Fig. 24—Cylinder lowered so yoke rests in bracket.

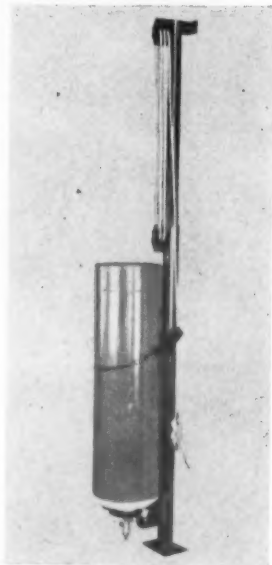


Fig. 25—Cylinder lifted vertically.

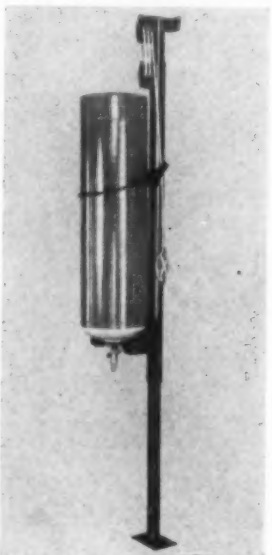


Fig. 26—Cylinder raised to desired height.

Method of Transferring Refrigerant to Smaller Unit

(Concluded from Page 12, Column 5)
ders of 8, 10, and 12-in. diameters, but will accommodate all cylinders having a diameter of from 7 to 12 inches. The hoist yoke screws onto the threads provided for the valve protection cap. These threads are standard for most refrigerant manufacturers' cylinders.

The five illustrations show and describe very clearly how this hoist is used. Cylinders used in service work must be kept clean and dry internally. If they are being used for pumping refrigerant from a system, they are bound to collect dirt, oil, and other foreign materials which, if recharged into another system, may result in trouble.

Methods of Cleaning Cylinders

There are several methods of cleaning dirty cylinders. First, to determine if the cylinder is dirty, it should be turned upside down with the valve pointing down and some of the liquid refrigerant allowed to blow directly onto a piece of clean dry glass. If there is any sign of foreign material on the glass after the test, the cylinder is dirty.

The cylinder cleaning procedure then follows:

1. With at least 2 or 3 pounds of refrigerant in the cylinder, tap the outside of the cylinder all over with a wooden mallet—not hard enough to dent it, but hard enough to loosen any internal scale from the cylinder walls. Then roll the cylinder over and over several times. This will tend to wash dirt from the cylinder walls.
2. Then invert the cylinder with the valve pointing down and open the cylinder valve as wide as possible and let the entire contents blow out.
3. Remove the cylinder valve and see that it is completely reconditioned and cleaned. If the cylinder is equipped with a fuse plug (bottom), remove the plug and substitute a solid plug during the cleaning and drying period.
4. Pour 2 or 3 pints (for smaller cylinders) or 2 or 3 quarts (for larger cylinders) of carbon tetrachloride into the cylinder and wash the cylinder by rolling it on the floor for several minutes. Remove the carbon tetrachloride, and if it is very dirty repeat the wash with the same quantity of clean carbon tetrachloride.
5. Turn the cylinder upside down and allow the carbon tetrachloride to drain out. If clean compressed air is available, blow inside of the cylinder free of carbon tetrachloride.
6. Reinstall cylinder valve if not equipped with fuse plug. If so equipped, use a 3/4-in. male taper pipe by 1/4-in. SAE fitting in cylinder thread. Connect to vacuum line and place in oven heated to around 200° F. for at least 6 hours, under highest possible vacuum.
7. Break vacuum in cylinder by displacing with the refrigerant with which the cylinder is to be filled.
8. Then reinstall valve and fuse plug; cylinder is ready to be charged.

Any service company, dealer, or distributor having service cylinders in need of cleaning and not having the equipment to do so, may return them to a refrigerant manufacturer who, at a nominal charge, will clean and dry the cylinders and valves and return them either charged or under gas pressure.

When gas is being drawn from the top of a cylinder standing upright there is little danger of dirt or scale being drawn out with the gas. But when any steel cylinder is turned upside down, all free particles of scale and dirt fall to the bottom, which in this case is the valve end. Thus, when liquid is drawn from a cylinder turned upside down the liquid tends to wash the scale and dirt through the valve and charging line and into the smaller cylinder or condensing unit which is being charged.

For this reason, it is recommended that whenever liquid is being drawn from any cylinder, a highly efficient filter be used in the line to trap scale and dirt, and to prevent such matter being carried into the unit.

A refrigerant may be tested for moisture, oil, and foreign materials by drawing off into an absolutely clean and dry glass a quantity of the liquid, and the allowing this liquid to evaporate. Moisture, oil and foreign materials, if any, will be left behind in the bottom of the glass container. For a perfect refrigerant condition, there should be no residue after evaporation.

A good way to keep air and other materials out of refrigerant cylinders is to keep some refrigerant at all times in the cylinder. This would assure the valve being closed when not in use.

In other words, never pump all the refrigerant from the cylinder to the extent of pulling a vacuum on the cylinder. Always leave some pressure in the cylinder.

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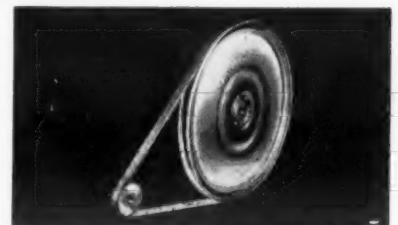
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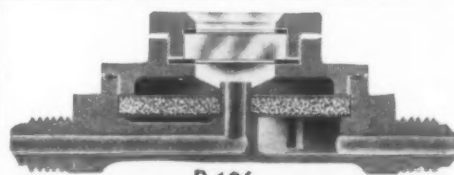
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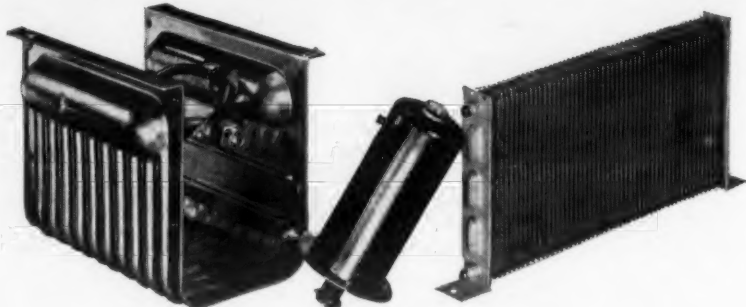
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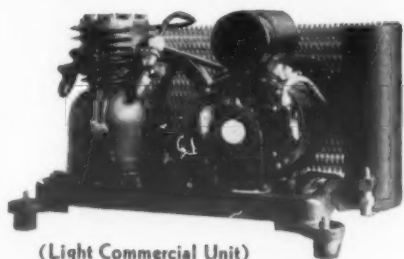
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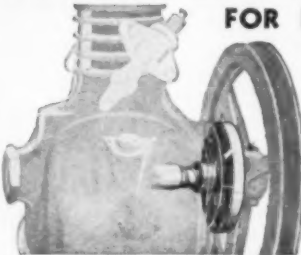
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DETROIT—George W. Mason, president and chairman of the board of Kelvinator Corp., and Arthur E. Allen, vice president of Westinghouse Electric & Mfg. Co. in charge of merchandising, are contributors to two of a series of editorial-advertisements which J. L. Hudson Co. department store is running as a prelude to its 55th anniversary, in September.

Both articles have to do with progress in the electrical field, Mr. Mason's dealing with advancement in refrigeration and air conditioning, and Mr. Allen's with electrical progress.

Mason on Temperature Control

"Countless outstanding developments directly affecting the well-being of the people of this nation have been brought about in recent years," Mr. Mason writes. "The electric refrigerator is a typical development."

"Fifteen years ago, for instance, only 10,000 electric refrigerators were in use. On January 1, 1936, there were an estimated 7,250,000 domestic electric refrigerators connected with power circuits in American homes."

"Because domestic electric refrigeration is a recognized contribution to the health and comfort of millions of families, it has attained a significance of large proportions. Its growth and development is a distinct tribute to engineering skill. Mechanical precision, advanced cabinet construction, and improved insulation have taken the guess work out of food preservation."

"Today, the public is signifying its acceptance of another development closely akin to the electric refrigerator which will play an equally important role as a contribution to a raised standard of living. Air conditioning, which has so obviously proven itself a decided asset to the theater, store, and office, is going into an increasing number of homes every day throughout America."

"It is interesting to observe that this demand has grown mainly from the appreciation of only one of the functions of air conditioning, namely air cooling. In this respect its sudden popularization is somewhat similar to that of electric refrigeration, which gained immediate public acceptance even without a full appreciation of its many advantages. When complete air conditioning, which provides exact selection of automatically-controlled temperature, humidity, circulation, and purity of the air, is more widely appreciated as a year-round necessity, an even greater demand will occur."

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"Although we have reached a high standard of perfection in such things as electric refrigerators, ranges, and scores of household and industrial appliances, the electrical industry is not stopping its research and its constant attempts to better its products."

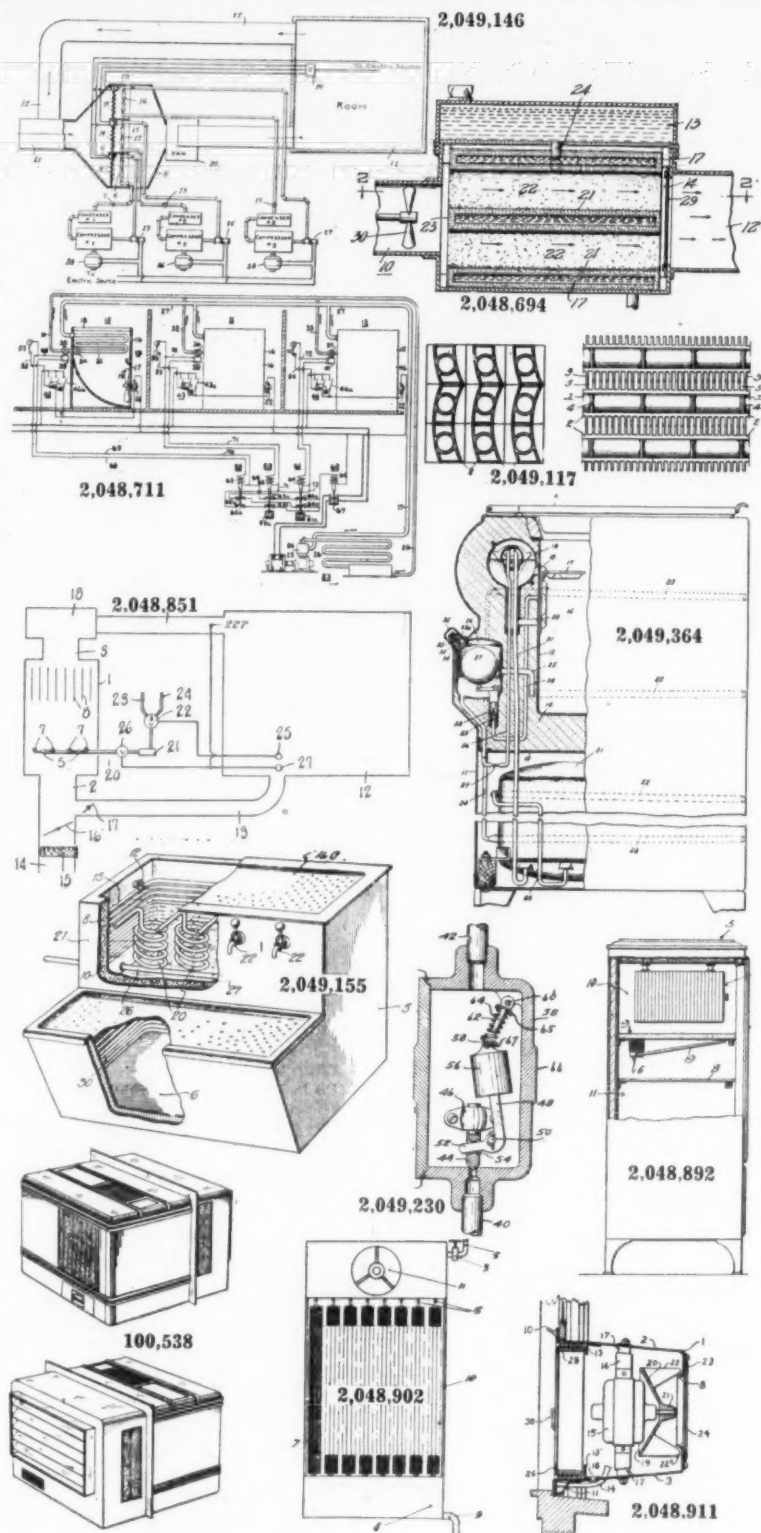
"Progress is the law of life. And as long as leaders have the foresight to encourage engineers and scientists, we shall continue to see developed more leisure for living, more freedom from hard work and humdrum tasks—and resultant higher standards of living. Surely the application of electricity has proved an unrivaled impetus to progress."

Rotary Seal Co. Charges Patent Infringement

NEW YORK CITY—Suit has been filed in the District Court of the United States for the Southern District of New York charging the Aero Products Corp. of New York with infringement of the U. S. Patent No. 1,869,933, the Cooke seal ring for compressors.

The suit was filed jointly by and in behalf of Cooke Electric Refrigeration Co. and Rotary Seal Co., both of Chicago.

The bill of complaint charges infringement of the patent through the manufacture of the Aero seal made by Aero Products Corp.



Patents

Issued July 28, 1936

2,048,694. AIR CONDITIONER. Gordon D. Harris, Freeport, N. Y., assignor, by mesne assignments, to Harris Air Conditioner Corporation, New York, N. Y. Application January 14, 1935, Serial No. 1,743. 1 Claim. (Cl. 257-9)

2,048,711. CONTROL SYSTEM FOR AIR CONDITIONING APPARATUS. Raymond J. Ridge, Lansdowne, Pa., assignor to Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa. Application November 22, 1933, Serial No. 699,286. 26 Claims. (Cl. 62-4)

2,048,851. METHOD AND APPARATUS FOR CONDITIONING AIR. Sewell H. Downs, Kalamazoo, Mich. Application September 24, 1934, Serial No. 745,281. 16 Claims. (Cl. 261-115)

2,048,892. REFRIGERATOR. George J. Reichert, Lawrenceburg, Ind. Application July 13, 1934, Serial No. 735,066. 2 Claims. (Cl. 62-89)

2,048,902. LIQUID COOLING APPARATUS. Rene Velut, Paris, France. Application April 1, 1935, Serial No. 14,165. In France April 10, 1934. 12 Claims. (Cl. 257-55)

2,048,911. AIR FILTERING DEVICE. Herbert L. Zimmerman, Milwaukee, Wis. Application February 12, 1934, Serial No. 710,901. 3 Claims. (Cl. 98-94)

2,049,117. HEAT EXCHANGING APPARATUS. Charles Adolphe Hubert, Strasbourg, France. Application December 5, 1934, Serial No. 756,023. In France July 4, 1934. 4 Claims. (Cl. 257-248)

2,049,146. AIR CONDITIONING APPARATUS. Alfred B. Wason, Montclair, N. J., assignor to Cooling & Air Conditioning Corporation, Boston, Mass. Application June 20, 1935, Serial No. 27,508. 7 Claims. (Cl. 62-6)

2,049,155. BEER COOLING APPARATUS. Louis Coleman, Park Ridge, N. J. Application May 9, 1935, Serial No. 20,598. 1 Claim. (Cl. 62-141)

2,049,230. REFRIGERATING APPARATUS. Harry F. Smith, Dayton, Ohio, assignor to General Motors Corporation, Dayton, Ohio. Application August 30, 1934, Serial No. 742,135. 4 Claims. (Cl. 137-139)

2,049,364. REFRIGERATING SYSTEM AND METHOD OF CHARGING THE SAME. Everett J. Fisher, Schenectady, N. Y., assignor to General Electric Company, Application August 1, 1934, Serial No. 737,942. 5 Claims. (Cl. 62-115)

DESIGNS

100,538. DESIGN FOR AN AIR-CONDITIONING UNIT. Donald D. Boothby, Chicago, Ill. Assignor to Air Devices Corporation, Chicago, Ill. Application May 2, 1936, Serial No. 62,420. Term of patent 14 years.

PATENTS

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Five Firms Indicted on Charge of Counterfeiting S-W 'Alemite' Fittings

NEW YORK CITY—Five corporations and 20 individuals here were recently indicted for conspiracy to manufacture and sell counterfeit "Alemite" and "Zerk" automobile fittings, copyrights of which are owned by the Stewart-Warner Corp.

Among the firms indicted by the grand jury were Snap-Lite Corp., Sun Ray Electric Plating Co., Miller Brass Fitting Co., Central Machine & Supply Co., Metal Specialties Co., and Presco Trading Co. Conviction on the charge of conspiracy to violate the New York State Trade Mark Law carries a prison sentence as well as a fine.

Stewart-Warner first began receiving complaints two years ago from dealers and distributors to the effect that the automobile parts were being sold by a number of dealers for less than factory price. Complaints were also received from owners of automobiles that defective "Alemite" and "Zerk" fittings were being used as replacements on their cars.

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POSITIONS AVAILABLE

EXCEPTIONAL OPPORTUNITY as district sales manager with nationally known electric refrigeration manufacturer. Consideration will be given men with experience contacting distributors of electric refrigeration, radio or appliances; or man who is holding position as sales manager for an appliance distributor. Full particulars regarding experience, references and compensation expected must be given in first letter. Box 824, Electric Refrigeration News.

OLD ESTABLISHED responsible manufacturer of excellent, well-known and competitive line of commercial display cases, boxes and coolers wants a high-class man of experience in wholesale selling to establish and sell to distributors and dealers in exclusive territory. Must have absolutely clean and successful record and give bond. Wholesome salary and expenses plus bonus on every acceptable order. Single man preferred. Answer fully in strict confidence giving age, experience, etc. Box 828, Electric Refrigeration News.

SALES MANAGER for domestic electric refrigerator and appliance department located in finest community in California. Must be an experienced producer, well educated, able to contact top people and able to hire, train, direct and hold good salesmen. Give business history and qualifications. Confidential. Box 831, Electric Refrigeration News.

OHIO MANUFACTURER has opening for young engineering college graduate with some practical experience in refrigeration field. Opportunity to assist in developing new line of commercial condensing units and learn production methods in a small but aggressive organization with well-equipped plant. Address Box 821, Electric Refrigeration News.

POSITIONS WANTED

SALES AND SERVICE ENGINEER with thirteen years of experience, having been granted claims on new type of condensing unit, wishes connection with company which would be interested in same. Would be willing to take small salary position during development. Patent arrangements can be made later. Box 823, Electric Refrigeration News.

FIRST-CLASS refrigeration mechanic, thoroughly experienced in household, commercial and air conditioning service and installation, would like to contact company installing refrigeration in foreign countries. Speaks French, German, English.

TEMPRITE
INSTANTANEOUS
BEER and WATER COOLERS
Detroit Michigan

VIRGINIA SMELTING Company
WEST NORFOLK, VIRGINIA
181 STATE ST. BOSTON 76, MASS. U.S.A.
EXTRA DRY
ESOTOOL
LIQUID SULPHUR DIOXIDE
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VIRGINIA METHYL CHLORIDE

BRUNNER
Send for the New
REFRIGERATION CATALOG
Eight Models of Compressors
Forty-one Models of Hsides
from 1/6 H. P. to 15 H. P.
BRUNNER MANUFACTURING CO.
UTICA, N. Y.

KRACK ENGINEERED
LIFETIME COILS AND UNITS
REFRIGERATION APPLIANCES, INC.
1342 W. Lake Street, Chicago

lish. Will go anywhere. Best references. Box 827, Electric Refrigeration News.

CONTROL ENGINEER—experienced in development and design of various types of refrigeration control devices. Inventive ability and knowledge of production methods. Box 826, Electric Refrigeration News.

REFRIGERATION SERVICE MAN, experienced fully, has car and best references. Now employed and residing in the East. Desires a change and will locate anywhere! Whether factory or service work does not matter. Full information upon request. Box 829, Electric Refrigeration News.

I HAVE HAD twelve years' successful experience in commercial refrigeration sales and engineering. Have excellent record as general sales manager, territorial manager, as well as actual retail selling experience. Am anxious to make new connection with well-financed company in field or office where diligence, ability and application will be rewarded. Box 832, Electric Refrigeration News.

REPAIR SERVICE

SAVE MONEY on electric motor repairs. We rebuild and rewind thousands of motors yearly for largest refrigeration firms in the East and can save you money on your motor problems. Write for our price schedule for rewinding or rebuilding motors for refrigeration, oil burners, washing machines, motor stokers, and air condition motors. Out of town motors are picked up and delivered by our motor transportation service. Write for our dealers' price list. P. J. QUINN'S SONS, INC., 166 Vernon Ave., Long Island City, N. Y.

REFRIGERATION CONTROLS, domestic types, repaired. 48 hours. Ranco pencil types \$1.75, all box types, \$2.00. Majestic \$2.50. UNITED GAUGE AND INSTRUMENT COMPANY, 436 West 57th Street, New York City.

MAJESTIC & GENERAL ELECTRIC units repaired. Our standard job on these units is \$20.00, giving you a six months' guarantee. We also have our \$30.00 deluxe job, giving you a two-year written guarantee. Please advise which job you want when sending your units. PENO SERVICE COMPANY, Ft. Smith, Arkansas.

MAJESTIC UNITS: any model, rebuilt or exchanged \$20.00 f.o.b. Chicago. Guarantee six months. All models in stock for prompt exchange. Wholesale only. REFRIGERATION PRODUCTS, INC., 122 W. Illinois St., Chicago, Ill.

HALELECTRIC LABORATORY is America's pioneer repair house for temperature and pressure controls. Our service, price and precision workmanship are unequalled. Ask your dealer about Warrenol for stuck-up jobs. Send us his name and we will send you a generous sample. HALELECTRIC LABORATORY, 1793 Lakeview Road, Cleveland, Ohio.

FRANCHISE WANTED

CHICAGO COMPANY, with sales engineering staff, desires to represent manufacturers in Chicago and middle west. Our experience covers domestic, commercial and air conditioning fields. STRANG CHICAGO AIR CONDITIONING CO., 110 North Wells St., Chicago, Ill.

Questions

Memphis Convention

No. 2883 (Manufacturer, Michigan)—"Will you please let us know on what date the convention issue, covering the Memphis, Tenn., Refrigeration Supplies and Parts Manufacturers' Association's Convention, will fall?"

"We presume it will be the week following the date of the convention, but wish to know well in advance."

Answer: The convention of the Refrigeration Service Engineers Society will be held November 11, 12, and 13 in Memphis, according to the most recent reports which we have. The report on the convention will thus in all probability be published in the Nov. 18 issue of ELECTRIC REFRIGERATION NEWS.

ASRE Data Book

No. 2885 (Manufacturer, Missouri)—"Can you tell us where we can purchase a copy of the 'ASRE Data Book'?"

Answer: Address the American Society of Refrigerating Engineers, 37 W. 39th St., New York City.

Rubber Mats

No. 2886 (Dealer, Kentucky)—"Stratton & Terstegge Co., Louisville, Ky., referred us to you for information as to where we can obtain rubber mats which go under refrigerator legs. They do not carry them."

Answer: We suggest that you write to the following companies.

American Hard Rubber Co., 11 Mercer St., New York, N. Y.
Felt Products Co., 1508 Carroll Ave., Chicago, Ill.
Wirfs Corp., 231 S. LaSalle St., Chicago, Ill.

12-Cu. Ft. Norge Model

No. 2887 (Dealer, Tennessee)—"Enclosed please find 25 cents in coin for which please send me your April 22 edition."

"Would also appreciate same if you will advise us if Norge makes a 12-cu. ft. box, 1936 model."

"What capacity is their model P-112-6?"

Answer: You will find in the copy of the July 1 issue (in which household refrigerator specifications were reprinted) the capacity of the Norge P-112-6 model, which has approximately a 12-cu. ft. capacity.

Data on Standards

No. 2888 (Engineer, Argentina)—"I am at present engaged in a technical capacity with a manufacturer of general refrigeration equipment here and I would be very grateful if you would pass my address on to the manufacturers of accessories who advertise in said periodical, with the idea of having their publications, technical leaflets or bulletins, catalogs, etc. up to date."

"Also I would thank you to send me by return mail the address of the American Association of Refrigeration Engineers or a similar organization where one can obtain details on the works of standardization and standards published to date."

Answer: The complete text of the approved methods for rating and testing commercial refrigerating machines was published in the Nov. 6 and Nov. 13, 1935, issues of ELECTRIC REFRIGERATION NEWS.

These standards may be what you are looking for.

The address of the American Society of Refrigerating Engineers is 37 W. 39th St., New York City.

G-E Hermetic Parts

No. 2889 (Dealer, New York)—"Please advise me where I can obtain parts for G-E hermetic compressors?"

Answer: The most logical place to get General Electric refrigerator parts is the refrigeration department of the General Electric Co., Nela Park, Cleveland, Ohio.

If for some reason, you can't or don't want to apply to the manufacturer for parts, we refer you to the independent manufacturers of parts who advertise in ELECTRIC REFRIGERATION NEWS.

Refrigerants and Oils

No. 2890 (Distributor, Illinois)—"Can you give us the names of two or three manufacturers of both sulphur dioxide and methyl chloride, besides the DuPont company and the Ansul Chemical Co.?"

"Also please give us the names of some oil manufacturers that make a good sulphur and methyl oil."

Answer: In addition to the DuPont and Ansul Chemical companies, which you mention in your letter, sulphur dioxide and methyl chloride are manufactured by:

Virginia Smelting Co., West Norfolk, Va.
The Matheson Co., East Rutherford, N. J.

With regard to your inquiry concerning sulphur and methyl oil, this product is manufactured by the following companies:

The Matheson Co., East Rutherford, N. J.
Standard Oil Co. of Indiana, 910 S. Michigan Ave., Chicago, Ill.
Sun Oil Co., 1608 Walnut St., Philadelphia, Pa.
Texas Co., 135 E. 42nd St., New York, N. Y.

Morgue Refrigerators

No. 2891 (Engineer, Palestine)—"As a subscriber to your magazine, I should be much obliged if you would invite any firm manufacturing the aforementioned equipment, to communicate with me. I have to submit quotations for a modern morgue and am particularly desirous to buy ready-made compartments for the preservation of dead bodies. They should be insulated either for a temperature of about 33° F., alternatively for an inside temperature of -5° F., the latter being intended for frozen bodies serving special medical purposes."

Answer: Manufacturers of "wall-type" refrigerators are listed on page 183 of the REFRIGERATION AND AIR CONDITIONING DIRECTORY. Almost any of these manufacturers can supply a mortuary refrigerator in accordance with your specifications.

Wants Distributorship For Air Conditioning

No. 2892 (Reader, Oklahoma)—"I am a subscriber to REFRIGERATION NEWS and will appreciate knowing the addresses of some of the better manufacturers of air-conditioning equipment with state distribution as objective."

"This includes portable as well as installed equipment."

Answer: We suggest that you consult the July 29 issue of ELECTRIC REFRIGERATION NEWS in which were published complete specifications of both summer and winter air-conditioning equipment. Copies of this issue are available at the cost of 25 cents each.

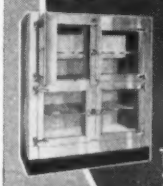
The Buyer's Guide

Suppliers Specializing in Service to the Refrigeration and Air Conditioning Industries

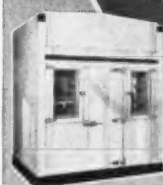
DISTRIBUTORS WANTED

for **KOCH** Commercial Cabinets

WRITE FOR FULL INFORMATION STATING QUALIFICATIONS



SOME VERY GOOD TERRITORIES STILL OPEN



KOCH REFRIGERATORS

Commercial Cabinets

Koch display cases are thoroughly insulated with 4-in. corkboard. Triple plate glass and triple coated porcelain are Koch standards.



North Kansas City, Mo.

TYLER'S NEW WELDED STEEL REFRIGERATOR CASES



At last a general purpose case at a sensible price. Offers every advantage of the most costly cases at tremendous savings. Modern in every detail. Comes equipped with coils. Single and double duty models.

AN AMAZING VALUE

Hundreds in use. Perfect refrigeration for meat, dairy and delicatessen products and all perishables sold in food stores. Write or wire for all the facts.

TYLER Sales-Fixture CO. Dept. E, Niles, Mich.

3 INCH INSULATION-TRIPLE GLASS



THE 3600 LINE—NOTABLE FOR ITS LARGER DISPLAY SPACE!

More square feet of display space than many other cases considerably larger. Three sizes are available—6, 8, and 10 feet long—and you have your choice of Porcelain or Dolux finish. Features include extra large rubber composition doors; extra height doors in storage compartments; full view of illuminated display section; removable intermediate shelf; 3" approved insulation; and three lights of glass. For real convenience, economy, room and accessibility, these cases cannot be equaled.

SOLD ONLY THROUGH DEALERS AND JOBBERS
WRITE FOR COMPLETE CATALOG

GLOEKLER MANUFACTURING COMPANY
499 FOURTH AVENUE, PITTSBURGH, PA.



PURO
ELECTRIC WATER COOLERS

Thoroughly reinforced all steel attractively finished cabinets.
Complete line of different Models and Capacities.

Write for details and sales prices.

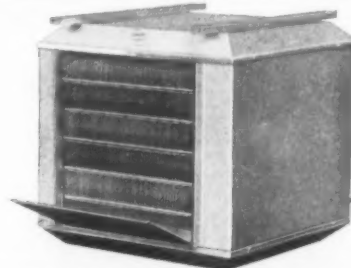
Puro Filter Corporation of America

440 Lafayette Street, New York City Spring 7-1800

UNIT COOLERS

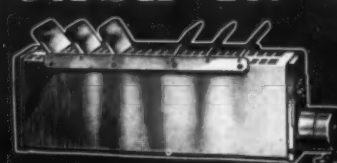
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CASH IN ON FILTERPURE



- ✓ Installed in a minute's time in counter cases and reach-in boxes.
- ✓ Lowers temperature 8 to 12 degrees.
- ✓ "Tops sweating."
- ✓ No taste transfer. You can place fish next to meat in absolute safety.
- ✓ Maintains color and firmness of meats.
- ✓ Uniform temperature and humidity.
- ✓ Retailers for \$29.50.

Filterpure is the fastest selling article ever introduced in the refrigeration field. It is the "missing link" to 100% refrigeration. Write today.

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